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AUGUST.

"O, come, thou goddess of my rural song!
And bring thy daughter, calm Content along;
Dame of the ruddy cheek and laughing eye,
From whose bright present clouds of sorrow fly;
For her I move my walks, I plat my bowers,
Clip my low hedges, and support my flowers;
To welcome her this summer seat I dress
And here I court her when she comes to rest;
When she from exercise to learned ease
Shall change again, and teach the change to please."

Health! "dame of the ruddy cheek." How the tired citizen seeks and courts her, as during this summer holiday he flies from the city, from filthy lanes and reeking alleys, with their "compound of villainous smell," away into the country; to rocky mountain side, or barren hill top; to shades and water courses and seashores—anywhere for clear, fresh air, and with it new supplies of health. The breath of his life has been burnt in his fiery furnace in winter, and in the summer heats stewed with foul odors into a fearful *Olla Podrida*; while good honest air, which should be the daily food, the meat and drink of his lungs, is only their occasional physic. And the man leaves his home (think of that! leaves his *home*,) to hunt, as for hid treasure, for the free air, the blessed breath of heaven.

What the inhabitant of the city seeks but once a year, the countryman drinks in at every breath, and with it unsought, unpurchased, the blessed boon of health and life.

WORK FOR THE MONTH.

This month, on the grain farm, brings comparative leisure. The pressing labours of corn cultivation, grain and hay harvest, give place to work which does not demand the same dispatch.

The threshing of the grain crop and preparation of fallows for wheat are now of chief importance, while any spare time from these may be very profitably given to collecting materials for manure, draining, &c.

THRESHING.

It is desirable to have the wheat crop in readiness for market, so that advantage may be taken of any favourable time for selling. Give especial attention to guarding against accident with the machine. Have a perfect platform for your driver. Use no machine which makes it convenient to the feeder to have his hand torn to pieces. Provide him with a mask made of sponge, which kept damp, will allow him to breathe and prevent his inhaling a large quantity of dust.—Other things will suggest themselves to the watchful eye of the master, who should give his attention to this important work.

PREPARATION OF FALLOW.

This is a part of his labour which demands the wheat-grower's close attention. After corn working and harvest are over, all other work should give place to this, if the ground be in good order for ploughing. Not only is it very desirable to have the Fallow done early, but it is doubly so to avoid being thrown so far back in the season, by the effects of drought, as to prevent a proper preparation in due time. Have three good horses to a plough, and, on any land with a good subsoil, plough to the full depth of eight inches. Have an eye to the honest breaking up of the clay knolls, which a lazy ploughman is very apt to slight. If you have yard manures to apply to any portion of the fallow, put it on after ploughing, and spread at once.

TOBACCO.

Keep the Tobacco well worked this month as

long as it can be done without breaking the leaves. Give it a second hoeing, drawing the earth slightly to the plant, and lay it by thoroughly clear of grass.

WORMS.

The whole Tobacco-growing country was last year singularly exempt from worms—so much so, that we might hope the prolific breed was broken up. We cannot depend upon that, however, but must exercise due watchfulness, lest they come unawares. As long as the plants are small and the worms not very abundant, a well driven flock of turkeys will do effective service. When the Tobacco gets large and worms numerous, do not rely upon them. The work of poisoning the horn-blower, as directed last month, should still be diligently pursued.

HOUSING.

Commence topping in due season—and make all necessary preparations for housing. See that you have a sufficiency of sticks for hanging. Top your plants low enough to give the upper leaves time to make good growth and ripen if possible before housing. Have the suckers carefully taken off before cutting, as they will continue to grow in the house and injure the quality of the crop.

POTATOES.

Continue to work late Potatoes until they bloom, and lay them by entirely clear of grass and weeds.

RUTA BAGA AND WHITE TURNIPS.

If the former of these are not yet sown, lose no time in doing so whenever the ground is moist enough to sprout the seed quickly. The different sorts of white Turnip may be sown as late as the 20th for table use, but cannot be expected to make a large crop. Sow any time after the 1st, when you find the ground in proper order.

RYE.

Have ground in readiness to sow Rye about 1st of September.

TIMOTHY.

Small lots to be sown in Timothy, should be got in order and sown about 1st of September. You may sow as early as the 20th of this month and raise a crop of turnips from the ground if desirable. If it is intended to sow with wheat it may be put in at any time that it is proper to sow that crop.

CATTLE PENS.

Do not neglect to pen your cattle, keeping the pens well littered; and if movable, change them frequently at regular periods.

A young liar will be an old one.

THE AMERICAN FARMER.

THE VEGETABLE GARDEN.

AUGUST.

SAVOYS, COLEWORTS, BORECOLE.

Plant Savoys the first week in the month—two feet each way is now distance enough. Plant Early Yorks and other sorts for Coleworts in the fall. Plant Borecole.

RADISHES.

Sow first of the month and at intervals of two weeks for supply.

TURNIPS.

Sow Turnips immediately for early table use. Principal crop from 10th to 20th of the month.

ASPARAGUS.

Keep the beds, especially new beds, entirely clear of weeds.

SPINAGE.

Sow a small quantity now and about the middle of the month for early use. General crop for spring use sow about 1st of September on light, warm, dry soil.

CELERI.

If not yet done, plant out at once full crop of Celery, according to directions given heretofore. Growing crops should be earthed up every ten days. This work should be done only when the ground is quite dry. Hold the stems up together to avoid covering the buds.

SMALL SALADING.

Sow every ten days on a shady border, Lettuce, Grasses, Mustard, &c.

GREEN PEAS.

For supply of these in October, sow from 1st to 15th of the month some of the early sorts.

KIDNEY BEANS.

These may be sown for fall use.

LETTUCE.

Early in the month sow Brown Silesian and Brown Dutch Lettuce seed, and again about the middle. About the last of the month sow Brown Dutch and hardy green Cabbage Lettuce to transplant into cold frames.

ENDIVE.

Sow Endive seed for late autumn and winter use early in the month.

MELONS AND CUCUMBERS.

Keep these free of grass and weeds while fruiting.

HERBS.

Cut such Herbs as are in bloom, and dry in the shade for winter use.

There are two things that modest men should never undertake—to borrow money or study law.

THE FLOWER GARDEN.

CARNATIONS AND PINKS.

Plants of these from pipings and layers that are sufficiently rooted, should now be planted out.

AURICULAS AND POLYANTHUSES.

Shift into pots with fresh compost, Auriculas which were not repotted in spring. Protect them against the heat of the mid-day sun.

PERENNIAL PLANTS—PROPAGATING.

There are many perennial flower plants which may be propagated this month by taking off young suckers carefully with a part of the root, or by taking up the whole plant and dividing—giving each piece a portion of the root. Of these are Pinks, Sweet-William, Rose-Campion, Scarlet Lychnis, Gentianella, Polyanthus, Primrose, Double Daisy, Double Camomile, Double Perennial Catch Fly, Double Ragged-Robin, Phloxes, Violas, Spines Tri Foliate and others. Water well at planting and occasionally after, and shade the plants till well rooted.

PLANTING BULBOUS ROOTS.

If not already done, plant out at once all autumn flowering bulbous roots, as Crocus, Colchicum, Autumnal Narcissus, Amaryllis. Snow-Drops, Spring Crocuses, Red and White Lilies may be taken up and replanted. Peonies and other tuberous-rooted plants may be taken up and separated after their tops have decayed.—Plant the small offsets in beds for propagation. The others in fresh earth for flowering, and cover from 2 to 4 inches.

SEEDS OF BULBOUS-ROOTED FLOWERS.

Sow seeds of any bulbous roots to get new varieties. The sooner they are sown after maturing, the more likely they are to vegetate quickly.

SEEDLING BIENNIALS AND PERENNIALS.

Seedling plants of the various sorts, whether biennial or perennial, may now be planted either into nursery beds or where they are to bloom. Such as require protection, such as Gilliflowers, should be put into pots.

PLANTS IN POTS.

All plants in pots should have regular attendance and be watered once a day.

GENERAL ATTENDANCE.

The suggestions of our friend McMahon for the month are, to give plenty of water, especially to young plants of all sorts; cut down stems of herbaceous plants past their bloom; loosen the earth on top of flower pots; clip hedges if not done heretofore; clip box edgings and trim other sorts; do this early and in moist weather; mow grass walks and lawns once a fortnight; sweep,

dress and roll gravel walks once a week; hoe and clean flower beds; trim and tie up loose growing or straggling plants; bud such as may be propagated in that way. Gather flower seeds as they ripen, &c.

THE GREEN HOUSE.

SHIFTING PLANTS.

If not done before, early this month young plants of Orange, Lemon, &c., which require it, should be shifted into larger pots with fresh earth. The proper period is when they have perfected their summer growth and before the autumn shoots have started.

PROPAGATING PLANTS.

Plants of various kinds may still be propagated by layers, cuttings, &c.

THE ORCHARD.

SUPPORTING TREES.

Such trees as are heavily loaded with fruit should be supported with substantial stakes, to which the limbs should be bound with strong bands of hay, carefully placed between the stake and the limb, to prevent rubbing.

THE VINEYARD.

Keep the vines well trained and tied up. Keep the ground entirely clear of weeds, that the fruit may have the full benefit of the reflection from the bare surface.

THE NURSERY.

BUDDING.

Peaches, Nectarines, Apricots, Almonds and indeed all sorts of fruits may be budded this month, whenever the bark parts freely from the stalk. Pears should be done early.

NEWLY BUDDED TREES.

These should be watched and the bandage loosened in three or four weeks. Such as have been grafted or budded heretofore should have all shoots below the bud and graft rubbed off.

STONES OF FRUIT.

Attend to gathering the stones of fruit, and plant immediately, or put them in moist earth in flower pots and plunge these in the ground. Do not allow them to dry at all, if you would ensure their coming up.

ATTENTION TO SEEDLINGS.

Attend well to all seedlings, keeping them entirely clear of weeds and the soil loose; and water well in dry weather.

AUTUMN PLANTING.

Whenever convenient begin to prepare your ground for autumn planting, by thorough digging and manuring.

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Cattle Scales—Reply to Mr. Turner.

To the Editor of the *American Farmer*:

When a lawyer arraigns a criminal for prosecution, he usually puts a half dozen or more counts in his indictment, and if he succeeds in sustaining a single one, he convicts the offender, and brings him to the bar of justice for the punishment due to his offence.

In my charge in the May number of the *Farmer* against the usages and practices at the Maryland Cattle Scales, in the city of Baltimore, I made four points:

First.—That I *understood* it was so arranged that a farmer could not sell his own cattle except at a reduction in price, but had to submit to a tax to a commission-man, who stood between him and the butcher. Proof: the items I gave from my account of sales, published in the May number of your magazine, and the known fact that a number of persons (reported to have accumulated ample means) are constantly engaged in this business—notwithstanding the preference which the President of the Baltimore City Butchers' Association says he always gives to the farmer and grazier—a fact now for the first time, so far as I have seen or known, promulgated.

Secondly.—A *combination* among the butchers, the effect of which, by breaking down competition, was detrimental to the interest of the farmer. Proof: my account of sales to Committee No. 1, and now the admitted fact, by the President of the Baltimore City Butchers' Association, which he states consists of "fifty honorable men," *bound together* and protected by charter rights, privileges and immunities. Until this avowal of Mr. Turner's I had no idea this combination was half as formidable, well appointed and well protected as we now learn, from the President himself, it is. If, however, in the future, the power of the honorable association of fifty respectable butchers shall be effectually turned against the middle men—to whose unnecessary and extravagant excise I object—and honestly and fairly in favor of the farmer, to whom Mr. Turner says "he always shows a preference"—I, for one, will be willing to head a subscription for a testimonial at least equal in value to the splendid service of plate recently presented by this association to its worthy President, doubtless for valuable and efficient services rendered to the *interest* of this corporation.

Thirdly.—I complained of loss in weight, and gave a comparison of weights at the Georgetown Cattle Scales in proof—showing that with the advantage of a month's additional feeding, after being weighed, that those driven to Baltimore were made to lose more than double over the Georgetown Scales. To rebut this, Mr. Turner gives the loss of two lots from the State of Ohio, viz: One of 80 lbs., the other 140 lbs. each—average loss 110 lbs. My loss on a drive of less than thirty miles, and after a month's additional feeding, as shown in the May number, 111 lbs. One pound more than cattle brought all the way from the State of Ohio. This does not apply to the old oxen, but to the fifteen fat cattle bought by Committee No. 1. And,

Fourthly.—The charges and exactions of the commission-man, who stands between the grazier and the butcher. Mr. Turner thinks my complaint against this class of men "betrays great ignorance of the ordinary laws of trade." Is it according to the "ordinary laws of trade" to charge a commission for selling, a commission for collecting, and then to pay off in a depreciated currency? If this is according to the "ordinary laws of trade," then I confess my ignorance of those laws, and feel no disposition to be instructed in them. In the days of Kelso and his contemporaries such "laws of trade" were unknown, or certainly not resorted to in any of my dealings with them. In this connexion I alluded to the large profits and handsome fortunes accumulated by the butchers. It may betray my ignorance, but were there no other evidences, we countrymen would be apt to look upon the ability to buy and present handsome sets of silver service, as some evidence of large profits and accumulated wealth.

Now, Mr. Editor, I submit to you and your readers—notwithstanding Mr. Turner's affected expression of indifference and contempt of "Plugs" and all who may see fit to question the justice and fairness of their proceedings—whether I have not established more than one count in my indictment against the Baltimore City Cattle Scales?

With your permission I will amend the indictment and make one or two additional counts. Since my former article was written, it has come to my knowledge that between the commission-man and Committee No. 1, was another party, who received \$0.12 $\frac{1}{2}$ per hundred, in the aggregate \$22.20, upon the fifteen cattle bought by Committee No. 1, and which does not appear in the account of sales returned to me by the commission-man, and of which I am completely defrauded. I do not charge Committee No. 1 with

any agency in this swindle, but I do charge it as another evidence of a combination in and about the Baltimore City Cattle Scales against the interest of the producing classes, and in favor of such individuals, clubs and associations as uphold and defend them. My loss, therefore, upon my seventeen cattle, driven to the city of Baltimore, is \$104.78 instead of \$82.58, as stated in my former article.

Mr. Lewis Turner volunteers a defence of the sworn Weigh Master, whose character he thinks is beyond the reach of "A Victim." I impugn no man's character, but simply stated facts and figures. These facts and figures still stand undisturbed. But who is this high official functionary whose character stands so far above the reach of "A Victim?" The Baltimore *Sun*, a short time since, gave a report to the Treasurer of Maryland, from the Baltimore City Cattle Scales, over the signature of Mr. —— Turner. Whether he be a relative of Mr. Lewis Turner is not stated. But a report current among cattle graziers and feeders in the country is, that he was a member, if not still so, of the Baltimore City Butchers' Association, of which Mr. Lewis Turner thinks it an honor to be the President. If this be so, his defence may be regarded as nothing more than the natural promptings of personal and official relations.

THE VICTIM.

N. B.—I had no knowledge of any other committee than Committee No. 1 when I wrote you before.

Scratches.

Taken in the commencement there is but little difficulty generally in effecting a cure, but where permitted, as it were, to burrow extensively, they are a difficult disease to eradicate.

There are many ointments and lotions highly recommended, and among them stands prominent the green ointment, or verdigris ointment, as a never-failing remedy; this I have seen tried without good results, as well as many others.

Not liking the use of such poisonous unguents for man or beast, here is a recipe, simple, safe and quite as effective as any of them, at least. If a bad case, wash the part with strong warm soap-suds till they are clean and smooth, then dry and rub them well with fat and salt obtained by frying salt pork. One application will generally effect a cure—if not in two or three days, apply it again in the same way. If it is not a bad case, and the horse is not used in the meantime, the fried pork alone will be sufficient to effect a cure.—*Cor. Homestead.*

Valuation and Inspection of Guano and other Fertilizers.

NUMBER TWO.

Written by DR. STEWART, Chemist of Md. State Agricultural Society, for the American Farmer.

There are seven modes of estimating the value of manures. The Inspector gives the proportion of phosphoric acid in guano, and this fixes its relation to an arbitrary standard, called A or B—according to the law—but as no regard is had to the solubility of the phosphoric acid in articles sold under the name of guano, this must be an arbitrary or unreasonable valuation—and the inspection only enables the farmer to guard against the reception of one variety of damaged and adulterated guano. As coprolites and bones are not guano, they can be adulterated ad libitum—but if the bones of turtles or a petrifaction "as hard as marble"** is ground and called guano, it must be inspected according to law and stamped or stencilled by State authority, and delivered to the farmer as guano. The name, guano, sells it, and it cannot be sold under the name of guano unless it is inspected, consequently all this extra expense is put upon the poor farmer, upon the same principle that "American brandy is put up in French barrels, exported and then imported again, in order to obtain the Custom House voucher for its French origin." This is "paying dear for the whistle," but in this case the expense falls on the consumer, whereas, in the case of guano, it rests on the farmer exclusively.

If, as I suppose, the dealer is an honest man, who adopts the name guano because sustained by the best authority, as in the case referred to, (coprolites) then it is just the case I want "to show up," as it exhibits facts without attributing bad motives—especially if I proved that the article is neither guano nor as good as guano!!

Phosphoric acid, as it naturally exists in gu-

*Since writing the above paper, I have received two letters from Baltimore, with regard to the article in the last *American Farmer*, headed "Guano vs. Coprolites." The request is made that I should distinctly state the names of those articles now sold in Baltimore under the name of guano that are not as soluble as guano and that I pronounce to be coprolites.

I will give a test by which any one can, without chemical reagent or manipulation, see for himself. With the aid of a good pocket lens, or, still better, a microscope, the Sombrero guano will be found compact and dense as one of the secondary marbles, whereas Navassa guano will appear porous and evidently composed of "organic matter." I have proposed, however, under these circumstances to examine all the varieties of guano, or articles sold as guano, provided I can secure samples of the State Inspector that have never passed through the hands of interested parties, but sent to me directly by mail, under the official seal of the State Inspector.

ano, may be soluble in pure water—or it may be comparatively insoluble, except the water be acidulated, as, for instance, that of bones and some varieties of phosphatic guano—or it may be difficult of solution *even in acidulated water*, except by the aid of heat or prolonged infusion, as, for instance, that of coprolites or *petrified excrements of animals, that are now ground and sold under the name of guano*—the Inspector being sustained by the best authority for branding them guano, and it being his duty so to do, according to the law as it now stands—but this I explained in the last number of *American Farmer*)—and I will only mention one more class in which phosphoric acid is very insoluble, even when boiled in acidulated water, viz: phosphate of iron and alumina or earth, and mineral phosphates that are sometimes ground and sold as manure, and their value estimated, *by the best authority*, by the proportion of phosphoric acid.

Now it will be observed that these four classes embrace *all* phosphatic manures—also the classification is *rational* and *not arbitrary* and unreasonable, as are the distinctions or classifications of the Inspector, and which he is bound by law to adhere to.

My fourth class is less than one-fourth the value of the first, and the first is double the value of the second, to any farmer.

It matters not where the article comes from, my classification by four numbers gives the farmer a distinct idea of the relative value of the article he buys; whereas the present mode of inspection does not, as the bag must be branded according to the ipse dixit of some *interested party*, who sends it to the Inspector under the most *saleable name*—this being, of course, a double lie when the article is neither guano nor from the locality designated by the brand.

It will be observed that I classify *all* phosphatic manures together and value them in proportion to the solubility and the per cent. of phosphoric acid that they contain. Two items, just as two items are made the basis of valuation in Peruvian guano, viz: ammonia and phosphates—the one worth 17 cents per pound, and the other 2 cents in Peruvian; the one worth 4 cents per pound and the other 2 cents in phosphatic guano.

For instance—if any phosphatic compound is found to contain over one per cent. of phosphoric acid soluble in pure cold rain water, it is classed as No. 1, and marked A, B, C, just in proportion as the quantity of *soluble* acid varies, upon the same principle that Peruvian guano is marked A, B, C, in proportion as its quality varies.

If any phosphatic compound is found to contain less than one per cent. of phosphoric acid soluble in water, then brand it No. 2, A, B, or C, in proportion to the per cent. of phosphates soluble in cold acidulated water.

If any phosphatic compound or guano contains less than one per cent. soluble in cold acidulated water, then brand it No. 3, A, B, C.

And so, upon the same principle, No. 4 would be stamped A, B, or C, or X, XX, XXX, in proportion to the phosphates, soluble in boiling acidulated water, (that were insoluble in cold acid percolating through them in the proportion of 10 to 1.)

There are other details of my plan for the inspection and valuation of manures, that I must reserve for the next number of the *Farmer*, and I will only add that by my plan *all manures sold in packages*—whether imported or manufactured—should be weighed, numbered and sampled, so as to diminish the expense to the farmer to one-half the present tax for inspection,—consume only one-half the time, and double the security—making the inspection seven-fold more definite and reasonable, instead of the present arbitrary and unreasonable mode.

I have no reason to suppose that the present Inspector does not carry out strictly the provisions of the *present* law under which he acts. I know him to be a polite and obliging officer—several interesting specimens of guano that I have obtained for comparison, and for our cabinet, I have received from him out of his reserved samples, and under his seal, per mail. But if the next Legislature changes the law, I am willing to offer the result, of ten or fifteen years' experience and observations to aid them in improving the present law; provided I am requested so to do by the proper authority—and in the meantime I will endeavor to expose some of the errors in the inspection and valuation of manures.

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BUGS AND CUCUMBERS.—Mr. Bergen, of Long Island, recently stated that some farmers in his neighborhood plant as much as ten acres each of cucumbers, and that the way they save them from bugs, is to use plenty of seed at first, and then at four or five successive periods they plant on a new side of the hill, a lot more of seed. This supplies an abundance of young plants for the bugs to feed on, and they leave the stronger growing plants untouched. When well out of the way of bugs, the surplus plants are dug up with the hoe.—*Homestead*.

Errors in Horticulture, &c.

We are indebted for the following to a correspondent at Columbia, S. C., who says he has suffered from "misplaced confidence in books and papers that profess to advise the inexperienced," but is pleased to make the *American Farmer* an exception to such as are too much given to filling their pages with untried specifics. He notes, for the benefit of others, several errors into which he has fallen:

Error number one.—Some three years ago—being a mere novice in the "*art of horticulture*," as *Philo Judeas* calls it—I was compelled to resort to works upon the art for such information as I needed; and, like every other novice, relied upon whatever was found written in works on this subject, as true, and among other things, found that peaches, nectarines and plums, budded or grafted on the Chickasaw plum, were never attacked by the borer. This suggestion was immediately acted upon, and the result is, I have the finest dwarf trees that can be anywhere found. The most of them now have fine specimens upon them, and were free from the ravages of the borer, as I believed, until a few days past, when my attention was called to a fine *Magnum Bonum* plum that had died, and to the leaves of a Stanwick nectarine, that had assumed a sickly hue, but I concluded that it was caused by the drouth; the latter I tried to remedy by watering and mulching, yet the nectarines wilted and the leaves dried up. The plum was taken up, and, to my utter astonishment, I found seven of the largest borers, that had literally devoured the roots. I removed the dirt from the Stanwick and found it nearly girdled, and will, I am fearful, die. This is my reward for implicitly relying upon specific number one, found in a newspaper.

Error number two.—We have a fine superior native plum, known as the "*Wild Goose*." Some of my plums measure, now, four inches in circumference, grown upon trees not more than three years old. The trees in 1858 were mere switches, six feet high, straight as arrows, about that size, and without heads. I cut them back to four very weak, feeble buds, some two feet from the ground, and the consequence was, they grew only four or five inches that season. Last season they formed fine round heads, and this, they set an abundance of fruit. These trees were not purchased alone for the fine quality of their fruit, but for the additional reason, that the papers and catalogues asserted that the fruit was never attacked by the curculio—consequently, while we were laboring to save our other fruit,

this was left to take care of itself, believing it to be safe; but being disappointed in the first instance, I turned my attention to these plums, and found to my great disappointment, that the papers and catalogues had played me false, and at least one-half of my plums were stung. This is therefore my compensation for relying upon the careless recommendations of newspapers and the false assertions of catalogues.

Error number three.—We had three superior apple trees, but the apples invariably specked and fell before maturing—in consequence of which, we cut down two that stood in the yard, as cumberers of the ground, the other remained in the garden. Last season the same disease made its appearance upon this seedling; every apple had a black speck, and, upon examination, it was the crescent mark of the curculio; but to make sure doubly certain, I had the tree shaken, and found it alive with the "*little Turk*," notwithstanding the assertion of a work of high reputation, that the curculio confined their ravages to the nectarine and plum. Here my confidence was misplaced in relying upon a name, and which resulted in serious injury. Then how cautious should authors and editors be in giving merely speculative conclusions to the world as facts, and that, too, when they know it will induce others to act upon such opinions as facts—and, what is worse, they intend others to act upon their opinions, and their only excuse is, they believed in the correctness of their conclusions.

There are many other errors which I could point out, but have not time. These errors carry with them a train of consequences positively injurious to the reader of agricultural and horticultural literature, and indirectly destroys confidence in authors and editors. Let our papers publish nothing as a specific for any thing, unless it is known to be such, by actual experiments, or only recommend it as worthy of trial. But enough of this.

In conclusion of this long rambling letter, let me simply make one suggestion, and that is, would not a convention of all the officers of the various agricultural and horticultural societies, at some central point, to devise the ways and means to combat the various insects, whose ravages are prejudicial, be attended with good results? Dr. Fitch is right when he asserts that there exists in nature remedies against all attacks of injurious insects to crops and fruits, and which will be discovered by proper experiments. But these experiments can only be made by united effort, and such a convention would concentrate such effort upon the proper subjects.

Think but a moment what varieties of subjects would necessarily come before such a convention of interest to the whole country. Would not a central horticultural society, with branches in the different States, as they have in Belgium, do more to advance the interest of the cause, than any other plan that could be adopted? Let us make a united effort, and it will give an impetus to the cause that will be felt for good all over the Union. Let us hear from you upon this subject.

I may give you a plan of my crib and stables hereafter, which I think have more conveniences than any I know of.

Yours truly, M. S. FRIEND.

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Turning to Grass Early.

We are much indebted to Mr. Downman for the following prompt reply to our request for information, last month, on this topic. It very often happens that there are facts in agriculture, so well known and well established in the practice of certain sections, that no question is ever made of them, while other sections, for want of the same interest, have never settled the question at all or have fallen upon an opposite practice without testing its value. It is one legitimate purpose of an agricultural journal to hunt up such facts and bring them out from the narrow circle to which they have been confined and present them to thousands whose observation they have escaped. The practice of the graziers of Fauquier county, as stated by our correspondent, seems to be a fact of this sort. We will not undertake to say how general the contrary opinion may be, but we know there are many good farmers who, thinking the early spring grass too weak and watery to do their cattle any good, make it a point of good management to keep their stock away from the grass, lest it take away their appetite for the more substantial hay; and for the sake, at the same time, of saving their grass, and converting into manure their old stock of provender, prolong the feeding season into late spring. They overlook the suggestion of nature in the craving appetite for something green, so familiar to man as well as beast in early spring. That it is her wise appointed way of preparing the system for the great change from the artificial method of winter feeding to her own mode of building up the bodily frame on full supplies of matured grass by grazing. The fact stated by Mr. Downman is not to be overlooked, that after a certain time the spring grass loses its quality of purging and the attendant effect of "loosening their hides and causing them to shed off"—a most important preparation to

the subsequent laying on of flesh and fat.—ED.
AMERICAN FARMER.

AVENEL, FAUQUIER CO., VA., July 9, 1860.

To the Editor of the American Farmer:

DEAR SIR: In the last number of the *Farmer* I noticed an article on turning stock to grass early, and that you requested your correspondents to give their experience on that subject. Since then I have talked with some of our most experienced graziers, and I find this opinion to be general in this county, (which annually fattens for market upwards of 20,000 beeves,) that the earlier cattle are turned to grass the better. When I commenced grazing, four years ago, I found this to be the general practice, and I followed it without making any experiment myself, but I am informed by one of my neighbors—Mr. Chas. J. Stovin, who has grazed for thirty years past, on an average, two hundred head of cattle annually—that he has seen the experiment tried. Two lots of cattle, equal in all respects, and which had been wintered alike, were selected in the spring, and one lot turned to grass ten days earlier than the other. The first lot took a start of the other and maintained it through the season, being ready for market *one month* sooner than the second lot.

A gentleman by the name of Fletcher, in the upper end of this county, was in the habit of reserving one of his sod fields through the winter and turning out a lot of cattle about the middle of February. He was thus enabled to send them to market about the first of June, when beef is generally high. He was a very successful grazier.

There can be no doubt whatever as to the fact that, in our county at least, the sooner we can get them to grass in the spring the better. The grass at that season is tender, and has the quality of purging the cattle, loosening their hides and causing them to shed off. It thus prepares their systems to take on fat rapidly as soon as the pasture becomes stronger and more mature. Later in the season it seems to lose this quality in a measure. I have known men to turn their cattle on their meadows for eight or ten days, early in the spring, so as to give them a start against the regular pasture becomes fit to turn on.

This is one of the finest grazing sections in the country. The land seems to be naturally adapted to grass, running into sod very quickly after a fallow. One of my neighbors—Mr. J. J. Hutton, of Woodstock—has a field of 100 acres of greensward, upon which he fattens from 80 to 90 head of cattle every year; and in a good grass season I have seen portions of the field from

which a good swath of grass might have been cut when the cattle were taken off in July. On the rest of his estate he fattens about 200 head.

On the adjoining estate of Airley, Mr. Chas. J. Stovin fattens about 275 head. He has a field of 150 acres, on which, this spring, he turned 100 cattle and 90 sheep, and kept them there until the first of June, when a portion of them were moved off. The grass is now nearly knee high over the field.

There are sods in this county nearly fifty years old, and so firm and strong that, to quote the language of our Representative, the Hon. Wm. Smith, "a bullock of a thousand weight may walk over them, after a week's rain, without soiling his hoofs more than a lady would soil her delicate satin slipper by crossing a Turkey carpet." This may sound like hyperbole, but unto all that doubt I say "come and see."

Yours, &c.

R. W. DOWNMAN.

Pea Vine Hay.

To make hay of pea vines, Mr. Edmonston, of N. Carolina, recommends the following simple plan of curing:

"As an article of forage or fodder, there is none superior to the pea vine. Horses and cattle will eat it with avidity, and in preference to any other kind of fodder. The difficulty of saving these vines has constituted the chief objection to their use. The writer believes that they can easily be saved, by cutting them off close to the ground with sharp hoes, in the month of September; and then, having first provided forks and poles, plant the former in the ground in a straight line, and so place the poles upon the forks, that a common-sized man can clasp his hands over the pole, (i. e., they must be about six feet above the ground.) Place rails, with one end resting upon the pole, about six or eight inches apart, after the manner of a top stack for a fodder house, as it is called, leaving both ends open, and upon these rails throw the vines, until they are about one foot deep; throw over all some straw or grass, and a good supply of the best fodder for milch cows, or any other kind of stock, will be obtained."

PALATINE COTTON SEED.—We learn from the *Natchez Courier* that James H. Mitchell, Esq., of that city, has sent three bales of cotton, raised on his plantation from the Palatine seed, to his merchant in New Orleans, D. R. Carroll, Esq., which brought him twenty cents a pound. That comes up near the price of Sea Island. Seed will be for sale next fall.—*Point Coupee Dem.*

[For the American Farmer.]

The Cattle Lung-Murrain in the U. States.

ITS CHARACTER, ORIGIN AND PROPAGATION.—THE FOUR PHASES OF THIS CONTAGIOUS AND MALIGNANT CATTLE-DISTEMPER.

By DR. RICHTER-SANDOR, Practical Veterinarian, Graduate of the University of Pest, Hungary, now in Baltimore, Md.

The lung-murrain (pneumonia pecorum epizootica, typhosa,—pleuro-pneumonia pecorum enzootica) is one of the most dangerous, terrible and destructive maladies, and has its seat in the lungs, but frequently also affects the skin of the breast.

This disease appeared in Europe (particularly in Hungary, Poland, Russia, England, Holland, Belgium, Sweden, etc.) at different seasons, but the *spring* or early summer, and the *autumn* seems to be more favored by it. Causes of its origin are: frequent, uninterrupted rains,—marshy or overflowed pastures with rotten grass,—impure, foul, dusty, damp or wet hay, second crop (after-grass) or clover,—the mildew,—watery and corrupted potatoes,—continual humid fogs,—stagnant, muddy drinking water, putrified by the heat of the summer, and filled with noxious and poisonous insects,—unhealthy, base, damp stables,—negligence and uncleanliness in feeding and attending the cattle, and finally—*contagion*.

A.—Symptoms of the disease in living sick animals.

The lung-murrain exhibits itself in *four* different phases:

First phase.—Troublesome, short respiration; asthmatical affection when moving; timidity in laying down. Water is only in *one* side of the sick animal, when it can lie down better on one side than on the other; but there is water in *both* sides, if they cannot lie on either side. Often they lay only down in the greatest lassitude, and let themselves down at first on their hind-legs. They seldom rest on one side, but principally on the lower part of the breast and the body. They rest frequently only a few moments with bent knees, and suddenly jump up again. The pulsation of the heart is sensible only if they move, and resembles the rolling of small balls under the hand. Leaning your ear on the breast, you will hear the distinct noise of the water in the cavity of the chest; this is the mark of the *dropsey of the chest* (hydrops pectoris). The pulse is irregular, but only a little more rapid than in sound cattle. The eyes are withdrawn, dull, humid; the eye-balls not inflamed. The whole face (nose, mouth, gums and tongue) looks pale, or bluish and inflated; the inside of the nose is pasted

over with a gluish humidity; the mouth is filled with a smeary spittle; incisors loose. They ruminant only whilst standing up, and more seldom than sound animals; they suddenly jump up, after a few moments, if they lay down ruminating. Beginning of the cough, particularly in the morning. Head is hanging down; the milk in the cows dry up; general sadness; laziness in the walk; the cattle grow thin.

Second phase.—Increasing weakness; the forefeet are widely spread out, when standing. The ears and horns are alternately cold. The cough becomes rough, short and damp; the respiration is quicker and shorter, with a violent movement of the flanks. Asthma, in consequence of the water entering the cellular texture of the lungs (*hydrope pulmonum*.) The *left lobe* has become hard, if the pulsation of the heart is still sensible on the *right* side of the breast, and if you observe on the *left* side a knocking as if produced by a large and hard body. The pulse is soft, waving and not full. The milk in the cows is entirely gone; the flow from the nose increases; the mouth is filled with slime; frequent gnashing of the teeth. The sick animals are tottering in the hind-part.

Third phase.—The cough and movement of the flanks have become much faster. The respiration is extremely troublesome, asthmatic, rattling with frequent groans and inclination to vomit. They open the mouth and snap for air; their breath is putrid; appetite little; the emaciation and general weakness is increasing from day to day; they look very dejected; the hind-part totters more; their feet are swollen; the hair is rough and bristly; they look unsteady and stiff, and ruminate seldom; vehement thirst.

Fourth phase.—The sick animals neither eat nor ruminate, and only like to drink cold water. They are hollow-eyed; their look is staring and unsteady. Watery humors sometimes appear on the neck, breast and belly; the feet are swollen; their excrements are either very dry and arid, or unusually thin and watery; the pulse is much lower and more rigorous; a rattling in the breast is audible; the flow from the nose is thin, filthy, reddish-brown, stinking and sometimes mixed with blood; that part of the nose which is situated between the nostrils is dry; the ears and horns are cold; the body is insensible; the sick animal looks like a skeleton covered with a skin. Death ensues by suffocation.

B.—Symptoms of the disease in animals which have died of this murrain.

A.—Externally.

The corpse is very thin; it does not swell up;

the belly is sunk in; the eyes lie deep in their cavities; a stinking, filthy fluid flows from the nose; the hair is rough and bristly.

B.—Internally.

The cavity of the chest is sometimes filled with water; the lungs are either in their natural state or reduced and pale; now and then they are extremely large and hard, and no trace of water can be found; sometimes only one lobe is hard and filled with water. The diseased lungs mostly are unusually large and inflated, particularly the *left lobe*, which is twice as large as that in sound animals, and has turned into a solid mass, and resembles no longer a lung. Its surface is frequently grown together with the pleura, and is sometimes covered with wind-tumors or hard knots; it is of a reddish or brown color, and surrounded with a dirty, yellow foam half an inch thick; now and then it is surrounded by a thick, greasy, yellowish-gray cellular skin (*pseudo-membran*) which connects it with the pleura, and which contains in its empty intervals a putrid, filthy liquid.

If we *incide* the sick lungs, a nauseous smell becomes perceptible, and you feel under the knife a firm and hard mass of flesh, (as if it was intergrown by cartilages here and there, resembling the "*scirrhus*") interspersed with small suppurations; the pieces cut off are of white and reddish color. In other places the lungs are more loose and cellular,—a yellowish-gray, mellow mass, containing a filthy fluid in the cells. The uncorrupted part of the lungs is loose; its inside and outside are light red. The sick part (mostly the *left lobe*) is of such an enormous size, that it seems strange that the animal could have lived with such an immense internal obstruction during the lengthy course of the disease.

Accumulation of water in the bag of the heart; heart dried up; symptoms of inflammation of the bowels; affection of the liver and the milt appear more seldom in the lung-murrain.

Pregnant cows, suffering with this murrain, mostly calve prematurely, whereby the life of the cow is often saved. Older cows, which have had a good many calves, the most quickly succumb to the lung-murrain.

As *principal preventatives*, (besides the appropriate medical aid,) may be recommended: Separate as soon as possible the sick from the sound animals; drive the cattle speedily away from wet pastures to dry and higher situated places; give them interchangeably green and dry feed, or meal mixed with bran and water, and provide them with pure and clear drinking water; keep the stables clean and airy, but protect the ani-

mals against a piercing draught of air; the impure air must be purified by chloride of lime; mix the dry feed with salt; never drive the cattle to their pasture when they are very hungry; for the hasty and greedy devouring of the wet and damp grass is injurious to them. It is advisable to give them good dry feed, mixed with salt, every morning before they are driven out, and every evening, when they return from their pasture; and to further the circulation of the blood, the cattle must be curried, brushed and well rubbed off with a handful of straw.

Bleeding is not a sure and commendable remedy against the lung-murrain, and the application of *setons* in the first phase of the disease is quite unnecessary. The use of the meat and milk of the sick animals is injurious. Hide, horns, claws and fat—the latter for the manufacturing of soap and candles—may be used without danger.

A principal remedy against the propagation of this malignant cattle-murrain from one State into a neighboring one, during its existence, is either to prevent all and each export and import of cattle—or to examine every piece of cattle, which is to be exported or imported, by impartial, incorruptible, honest and practical veterinarians.

As a caution against the hasty killing of the sick animals, it may be alleged: that the undersigned, in his medical treatment of the lung-murrain in Hungary, (1852 and 1853,) where this disease was vehemently raging, had not a single case of death in the first phase; and among 100 pieces, he saved in the second phase 75. Notwithstanding the greater heat, which hastens the progress of the disease, the same success is also attainable in America by timely help, which should be rendered to the diseased animals as soon as the slightest symptoms of this epidemic become perceptible.

DR. RICHTER-SANDOR,

Graduated and Practical Veterinarian, late Chief
Veterinarian in the Hungarian Cavalry.

KEEP A NOTE-BOOK.—To all our readers we say, keep a note-book, and when you visit any gardens where there are collections of choice shrubs, roses, etc., get the true name of any kind which you particularly admire and desire to procure another season, and write it down in your note-book. Write down not only the name as given you, but also the general character of the plant, the color of flower, etc. Do the same whenever you visit an exhibition of horticultural products; then from your note-book you will be enabled, in the fall or next spring, to make an order of purchase knowingly, for just such plants and fruits as you want. There will be no trusting to books or nurserymen, for you order what you know you desire.—*Ohio Farmer.*

On Compost and Vegetable Earth.

BY M. BOUSSINGAULT.
Translated from the "Journal d'Agriculture Pratique."
[CONCLUDED.]

At first sight the equivalent of 200 grammes of nitrate of potash diffused in a cubic metre of earth will appear a very feeble dose of azotous manure. But, in reality, the earth is only the excipient of the fertilizing principles: it is therefore in the water by which it is penetrated that, most generally at least, reside the agents destined to interpose in culture. Now, 100 parts of the soil of Liebfrauenberg absorb, when completely saturated and without changing its volume, 12 parts of water, say 546 kilogrammes per cubic metre. Every litre of water absorbed will contain therefore the equivalent of 0.512 grammes of nitrate of potash. Arable land is still sufficiently moistened when it contains no more than half the water it is capable of absorbing: being then more accessible to the air, it becomes more favorable to vegetation. In that state every litre of water will contain 1.024 grammes of nitrate, representing 0.172 grammes of ammonia, 0.141 grammes of assimilable azote, the germ of about 1 gramme of the proteous matter, the dry vegetable meat that the plant is capable of organizing.

I have already said that the compost owes not its fertilizing properties to saltpetre alone. I have thought that in order to complete the investigation it would be proper to seek for the azote and the carbon, the phosphoric acid and the ammonia, as I had already done with the vegetable earth, for these are the actual or approximate elements of fecundity.

The compost of the market-gardeners of Paris, which I have more closely examined, is the result of the slow decomposition of dung operated in the beds, established to determine that vegetation as precarious as vigorous, which is the true type of the most intense culture that it is possible for man to practice.

In order to form a hot-bed, we cover the soil with a dressing of horse-dung, of 1 m. 40 wide, and 0 m. 30 thick: we then water and press it strongly. Upon this basis we depose the bed of earth from 0.15 to 0.18 deep, more or less, completed by previous preparation, in which the plants develop themselves.

When we take away the hot-bed, the dung that constitutes the base is converted into an incomplete compost. This is a new earth, very porous, which we leave to acquire age by laying in heaps. There it subsides, becomes more dense, more homogeneous, more earthy; it is in this state that we form of it the upper stratum, the cultivable soil of a new hot-bed.

The compost obtained in one year not being employed entirely in the formation of the hot-beds of the succeeding year, there always remains an excess that the market-gardeners sell for top-dressing the lawns of pleasure-grounds.

I have examined two specimens of compost, one having been exposed on a heap for four or five months, belonging to a market-gardener; the other a new compost taken from a hot-bed of a garden belonging to M. Vilmorin. The first was dosed with dry matter the equivalent of 1.071 grams. of nitrate of potash per kilogramme; in the second, the equivalent of 0.940 grams. of the same salt. With the magnifying-glass we perceived in these composts fragments of quartz, very limpid and colorless, small calcareous nodules, detritus of vegetables more or less marred, having a brown tint, acquired from the peat. The compost has otherwise much analogy with vegetable earth, as it is easy to satisfy ourselves by comparing its composition with those of different earths.

1st. The mould of a kitchen-garden at Bischwiller, near Haguenau: soil sandy, strongly manured.

2d. The light mould of the kitchen-garden of Liebfrauenberg.

3d. A very argillaceous earth, very strong, from Bechelbronn, taken in autumn in a soil where wheat had been harvested.

In a kilogramme of Matter dried in the air.

	Market-gardeners.	From Verriers.	From Bischwiller	From Liebfrauenberg.	From Bechelbronn.
Azote enter'g into the composition of organic matters.....	Gram.	Gram.	Gram.	Gram.	Gram.
Azote entering into the composition of organic matters.....	10.503	5.281	2.951	2.594	1.397
Ammonia quite formed.....	0.118	0.084	0.020	0.020	0.009
Nitrates, equivalent to nitrate of potash.....	1.074	0.040	1.520	0.175	0.015
Phosphoric acid.....	12.800	5.424	5.536	3.120	1.425
Lime.....	63.006	11.280	32.030	5.516	20.914
Carbon belonging to organic matters.....	99.400	66.422	28.770	24.300	11.590

We find, in fact, that the compost and vegetable mould taken in situations sufficiently various, present, notwithstanding, in their constitution, the same active principles, and that the real difference lies only in their properties. Thus it appears that a fertile earth may be represented by compost disseminated with a quantity, more or less strong, of a mineral basis, whether argillaceous, calcareous, or siliceous. If, for example, we add 4 kilograms of sand taken from the sandstone of the Vosges to 1 kilogramme of the market-gardeners' compost near Paris, we shall

obtain a mixture, approaching in its aspect and composition, the vegetable mould of Liebfrauenberg, and differing from it certainly less than the latter differs from the mould of Bischwiller, of which, however, the sandy basis possesses the same nature and origin.

In 1 kilogramme there was of

	Gram.
Azote entering into the composition of organic matters.....	2.101
Ammonia perfectly formed.....	0.024
Nitrate, expressed by nitrate of potash.....	0.212
Phosphoric acid.....	2.560
Lime.....	12.600
Carbon belonging to organic substances.....	19.800

A happy circumstance has furnished me with an opportunity of extending my investigations to vegetable earths, which M. Le Gendre Declay, a zealous traveller, had reported on the shores of the Amazon and its principal tributaries. The six samples put into my hand represented the compost or ooze of the shores of the Rio Madeira, the Rio Topajo, the Rio Trombettio, the Rio Cu-pari, and the Rio Negro, whose waters uniting themselves to those of the Casiquiare, establish the junction of the two greatest rivers of the New World, the Oronoco and the Amazons; a communication so astonishing that geographers have doubted its reality until the memorable exploration of Alexander von Humboldt.

The Earth from the shores of the Rio Madeira.—Argillaceous; very plastic; bluish grey, enclosing debris of radicles; does not effervesce with acids; forests; culture, tobacco and sugar-cane.

The Earth taken at the embouchure of the Rio Trombettio in the Amazons.—Very argillaceous; a clear brown; makes no effervescence; forests; culture, tropical.

The Earth taken from the embouchure of the Rio Negro in the Amazons.—Furnished by a yellow sand, very loose; alluvium, having its origin in the granitic mountains of Guiana; does not effervesce; a steppe clothed with herbaceous vegetation.

The Earth taken from the shores of Lake Saracá, near the Amazon.—Mixture of clay and sand; a deep brown, interspersed with debris of roots; makes no effervescence. The deposit forms on the shore a cliff of from 80 to 100 meters thickness. The sample has been taken from land cultivated with tropical plants.

The Earth from the plateau of Santarem, elevated from 290 to 300 metres above the Amazons.—Mixture of sand and clay, almost black; abundant debris of vegetable matter, having sometimes the appearance of fossil wood; makes no effervescence; soil very fertile; rich culture of cocoa trees.

The Earth taken from the shores of the Rio Cupari, at the point of junction with the Rio Topajo, is the most remarkable for its constitution and extraordinary fertility. It forms a bank, one or two metres thick, arising from the superposition of alternate strata of sand and leaves, often well preserved, of a deep brown. It becomes entirely disintegrated, and then the sand is easily separated by the sieve. From 100 parts we took—

Sand.....	60
Decayed leaves.....	40
	100

The soil of Cupari must be considered as a deposit of compost of leaves, the extent and power

of which explains at once both the vigorous vegetation and the formidable insalubrity of that hot and humid locality. This natural compost exhibits the peculiarity of containing no trace of nitrates, whilst it is unusually rich in ammonia.

I have disposed the results of these experiments in a tabular form. In discussing them we cannot refrain from offering this observation—that the soils of Brazil, undoubtedly the most fertile we are acquainted with, are derived from Feldspathic rocks, and contain only a few thousandths parts of lime.

In a kilogramme of air-dried earth—

	Azote entering into the composition of organic matters.	Ammonia well formed.	Nitrate equivalent to nitrate of potash.	Phosphoric acid.	Carbon belonging to organic matter.	Lime.
	Gramm.	Gramm.	Gramm.	Gramm.	Gramm.	Gramm.
Rio-Madeira	1.423	0.090	0.004	0.864	9.100	2.032
Rio-Trombetto.....	1.191	0.030	0.001	.....	5.863	3.696
Rio-Negro.....	0.688	0.038	0.001	0.792	5.900	3.304
Amazonas, near Lake Saracá.....	1.820	0.042	0.000	0.176	14.944	4.696
Amazons-Santarem	6.490	0.083	0.011	0.288	71.585	15.640
Rio-Cupari (natural compost).....	6.850	0.525	0.000	0.445	129.000	4.408

It appears from these researches that, in spite of origins, diversity of situations, on the borders of the Rhine, and in the valley of the Amazonas,—in soils superabundantly improved by European cultivation, and in alluviums deposited by the great rivers of the impenetrable forests of America—the vegetable earth contains always the same fertilizing principles, the same that we find in larger doses in compost, the spoils of what has vegetated and lived on the globe; ammonia, or nitric acid, the most ordinary of ammoniacal salts united to nitrates; phosphates mixed with alkaline and earthy salts; and constantly organic

azotous matters, of which the carbon, given by analysis, is evidently the index, and in some sort the measure. Complex matters incompletely studied, to which, in the meantime, according to my experiments, I recognize that singular property of producing, under certain influences acting in the normal conditions of arable land, nitric acid and ammonia, that is to say, the two combinations in which azote is assimilable by plants.

BOUSSINGAULT,
[Member of the Academy of Science, and
of the Imperial and Central Society
of Agriculture.)

Hymn to the Rain.

The rain! the rain! the silvery rain! it comes to the arid earth again. The flowers look up from their lowly beds, with the glittering pearls on their beautiful heads, and fragrance fling to the passing breeze for the heavens' royal charities. The leaves on the trees have a fresher green, the fields a brighter hue; as if some magician had shifted the scene, and brought other lands to our view. And look! see the grain, on valley and plain, nodding in thankfulness now for the rain! The corn is springing, the wheat grows tall, and nature is singing, "there'll be bread for all!" See the big drops dancing upon the stream, with a music as soft as one hears in a dream; hark! on the roof, like the patter of

feet, it falls with melodious sound, while down from the gutters and into the street it comes with a joyous bound. We sit by the window in pleased surprise, watching this blessing descend from the skies; and we think, is there aught in this world of ours which scatters such largess as heavenly showers?—which come, as now, when the earth is athirst, and the husbandman fears for his crops the worst; and he almost feels, as he looks abroad, that seedtime and harvest, the promise of God, may be broken quite, and his dream of gain prove baseless, all, for lack of the rain.—*Chron. and Sentinel.*

The man who confines himself to the drink best for him, is well-supplied.

Planting and Gardening.

There is a great deal of enjoyment to be derived from performing the operations of gardening, independently of the health resulting from this kind of exercise. To labor for the sake of arriving at a result, and to be successful in attaining it, as cause and effect, is attended by a certain degree of satisfaction to the mind, however simple or rude the labor may be, and however unimportant the result obtained. To be convinced of this, we have only to imagine ourselves to be employed in any labor from which no result ensues, but that of fatiguing the body, or wearying the mind; the turning a wheel, for example, that is connected with no machinery, or if connected, effects no useful purpose; the carrying a weight from one point to another and back again; or the taking a walk without any object in view, but the negative one of pursuing health. Thus it is not only a condition of our nature, that in order to secure health we must labor; but we must also labor in such a way as to produce something useful or agreeable. Now, of the different kinds of useful things produced by labor, those things surely which are living beings, and which grow and undergo changes before our eyes, must be more productive of enjoyment than such as are mere brute matter,—the kind of labor and other circumstances being the same. Hence a man who plants a tree, a hedge, or sows a grass-plat in his garden, lays a more certain foundation for enjoyment, than he who builds a wall or lays down a gravel walk; and hence the enjoyment of a citizen whose re-creation is at his suburban garden, must be higher in the scale than that of him who amuses himself in the plat round his house, with shooting at a mark, or playing at bowies.

One of the greatest of all the resources of enjoyment resulting from the possession of a garden, is the endless variety which it produces, either by the perpetual progress of vegetation which is going forward in it to maturity, dormancy, or decay, or by the almost immeasurable kinds of plants which may be raised even in the smallest garden. Even the same trees, grown in the same garden, are undergoing perpetual changes throughout the year; and trees also change in every succeeding year relatively to that which is past; because they become larger and larger as they advance in age, and acquire more and more their characteristic and mature form. Independently of the variety of change resulting from the variety of plants cultivated, every month throughout the year has its particular operations and its products; nay, it would

not be too much to say, that during six months of the year, a change takes place, and is perceptible in the plants of a garden every day; and every day has in consequence its operations and its products.—*Loudon.*

Lady Birds—(*Coccinella*.)

My nursery, for three summers past, has been much infested with the leaf-louse, which attacks the leaves on the young grafts when eight to ten inches high, causing them to curl up, giving them the appearance of having been scorched by fire. The depredations were continued on the leaves until August, when their labors appeared to be at an end.

We tried a wash, made from a decoction of aloes, tobacco and soft soap, washing all the leaves on some 4000 young apple trees with a sponge. This appeared to arrest them for a few days, but they soon returned again to their work of destruction, causing the young trees to make a poor, weakly growth, with small, wiry limbs.

When we were engaged in grafting in March, this spring, we noticed myriads of the beetle, known by the common name of Lady Birds, busily engaged amongst the patches of Wooly *Aphis* (*Aphis Lanigera*) in destroying them; knowing that these insects were carnivorous, we carefully left them undisturbed wherever practicable, hoping to benefit by their presence in arresting the ravages of the leaf-lice.

Our hopes were not in vain, for up to the present time not a louse has been seen on our trees; and now, at the writing of this, they are engaged in devouring the Wooly *Aphis* at the roots of the trees. Wonderful! is it not? Here a tiny insect has been able to accomplish that which all-powerful man was powerless to do!

Could we but find such an efficient auxiliary in combating the Curculio, would it not be a blessing indeed? Now, he is the greatest enemy known to Pomology.

We have recently noticed that the Pomological Society of Pennsylvania have offered a premium of \$25 for a remedy or prevention to the ravages of the Curculio. This we think a very diminutive proposition. It should have been \$2500 instead of \$25. There would not be any difficulty we imagine, in finding one hundred nurserymen, not to speak of amateurs, who would each give \$25 for an efficient, practicable and thorough prevention to the attacks of the crescent-king.—*Cor. Southern Cultivator.*

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A lady's home dress ought to last a long while
—she never wears it out.



DESIGN FOR A SUBURBAN COTTAGE.

In accordance with a determination made at the commencement of the present volume, to furnish new and useful illustrations to the *Farmer*, we present another chaste, simple and yet very beautiful design for a cottage residence.

The sketches which we now offer comprise a design and plan for a cottage suitable for a suburban or village lot. Though the exterior is somewhat ornamental in its character, there is nothing about it costly or difficult of execution—no detail which cannot easily be wrought by any ordinary house carpenter.

It is designed to be of wood, and covered in the usual vertical and battened manner. The roof projects two feet and a half, and is supported on brackets. The house should rest on a foundation projecting, at least, three feet above the level of the ground. The first story is 10 feet high in the clear, and the second 6 feet at the eaves and 10 feet high at the ceiling. The plan comprises—

No. 1, gallery, 5 feet wide. No. 2, hall, $7\frac{1}{2}$ feet wide and 20 feet long, containing stairs to chamber and cellar.

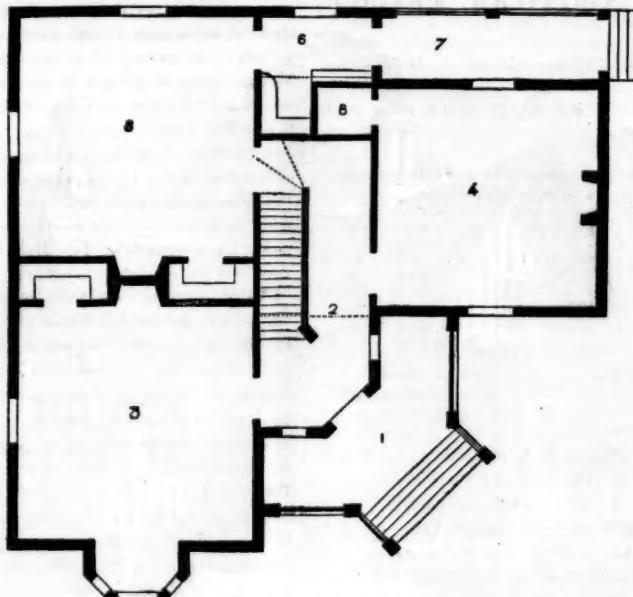
From the hall we enter No. 3, the parlor, 16 feet square, in the front of which, and forming its principal feature, is a bay window overlooking the front yard.

No. 4 is 15 feet square, and may be used either as a bed-room or living-room. No. 5, the kitchen, is 15 feet by 16; it contains a large closet, and connects with a pantry, No. 6, which opens upon a gallery, No. 7, leading to the yard. Under this gallery is the outside entrance to the basement.

The second floor contains 4 chambers, each furnished with a large clothes-press; two of these chambers are lighted by dormer windows.

Cost, about \$1600.

[For engraving of Ground Floor Plan, see next page.]



GROUND FLOOR PLAN.

The Truth Rightly Spoken.

Mr. John Johnston, the celebrated Geneva farmer, of Western New York, in a recent letter addressed to Col. B. P. Johnson, Secretary of the New York State Agricultural Society, and published in the Monthly Journal of the society, lays down these telling facts, in brief, which we presume no farmer will deny, and we hope all will apply whose shortcomings brings them within the pale of the implied reproof:

"I notice that those farmers who have most difficulty to make *ends meet*, always plough most, and keep most stock. Now these men take the true plan to keep themselves always poor, because their crops and stock are always poor and bring little. It is a good profit to raise 300 bushels of wheat from ten acres; but when it takes thirty acres to raise that amount, it is raised at a loss; so it is with cattle and sheep; you will see the thinking farmer making four year old steers worth from \$60 to 80 each, and his neighbours, at the same age, not worth over \$25 to \$40.—Now this ought not to be, in a country where all men are born free and equal; if the farm is rich, then labor intelligently employed will soon make the owner in easy circumstances; if his land is exhausted, (and a great many farms are,) then

he should plough no more than he can thoroughly manure. Seed with clover and grass, and let it rest for even two years, and that field will not only pay well for tillage, but it will furnish manure (if rightly managed) to make another field of same size, rich also; it is bad policy, when a field is once highly manured, to continue cropping it with grain until the manure is used up. The latter end of that land will be worse than the first; but let that land lay in clover, even one year, but two is better, after it is manured, and then it will stand perhaps six good crops before it requires manuring; if a clay subsoil I know it will."

REMEDY FOR BITES AND STINGS.—As many of our readers are preparing to travel or go to the country for the summer, it may be useful to remind them that an ounce vial of spirits of harts-horn should be considered one of the indispensables, as in case of being bitten or stung by any poisonous animal or insect, the immediate and free application of this alkali as a wash to the part bitten, gives instant, perfect and permanent relief, the bite of a mad dog (we believe) not excepted; so will strong ashes-water.—*Hall's Journal of Health.*

The American Farmer.

Baltimore, August 1, 1860.

TERMS OF THE AMERICAN FARMER.

Per Annum, \$1 in advance—6 copies for \$5—10 copies for \$8.

~~ADVERTISEMENTS~~—payable quarterly in advance—eight lines of small type constitute a square:

Size.	1 Mo.	2 Mo.	3 Mo.	6 Mo.	1 Year.
One Square	\$1.00	\$2.00	\$3.00	\$6.00	\$10.00
Half Page.	10.00	20.00	25.00	40.00	60.00
One Page.	15.00	28.00	40.00	60.00	100.00

N. B. WORLINGTON.

THOS. B. LEWIS.

WORLINGTON & LEWIS,

Publishers of the "American Farmer,"

CARROLL HALL, S. E. Corner Baltimore and
Calvert streets, Baltimore.

~~ADVERTISEMENTS~~—Mr. WM. C. LIPSCOMB, Jr., is our Traveling Agent for Maryland and Virginia.

Insect on the Osage Orange.

As it is not unlikely that the insect lately described in our paper as destroying the Osage Orange hedges, is the same which plagues the orange groves, we call the attention of those whom may concern to the following:

Dr. N. H. Morague, in a communication to the U. S. Patent Office, states that in connection with Mr. Townend Glover (at that time Entomologist to the Agricultural Division of the Patent Office, and now of the Maryland Agricultural College,) he had made a series of experiments for the destruction of the insects which was destroying his orange groves. After trying, with little success, sulphur and lime, aloes and whiskey, coal-tar, soda, syrup, &c., they came to the conclusion to try Peruvian guano, and for this purpose, made a solution of a common bucket-full of guano and a barrel of soap-suds. The trees were syringed with this once a week for a month or two, and with complete success. It was applied with a tin syringe, with minute holes perforated in the end.

~~ADVERTISEMENTS~~—"Severn Side," the beautiful property of Major L. Giddings, is again offered for sale. With its fine improvements and extensive vineyards and orchards, and beautiful and convenient location, it offers rare attractions to those wanting a first class residence and estate. We will send to any one desiring it, a circular containing a particular description. The proprietor being determined to sell, this farm can be bought on moderate terms.

~~ADVERTISEMENTS~~—Typographical mistakes are annoying until they reach a certain point of absurdity, when they become amusing. We published last month an advertisement of Stock for sale by Charles Mason, Esq., of King George county, Va., in which it is made to appear that that gentleman is breeding a species of hybrid which he calls the "Devon Horse," the mother being a cow! instead of a cross of the Devon with the "Khaisi" or Dead Sea cattle, imported by Lieut. Lynch. We refer to it only to correct the error, but must make the explanation that Mr. M.'s advertisement was copied by his Agent here, and the name "Khaisi" was written in plain letters "B Horse." The printer is bound to follow his copy, and did so, and the absurdity escaped our own notice.

~~ADVERTISEMENTS~~—SALE OF POTATOES BY WEIGHT.—The law has for some years past required the sale of potatoes by weight, but there being no penalty attached, the requirement has been entirely overlooked. The last Legislature repealed the old law and enacted that "Potatoes in this State shall be sold by weight, at the rate of fifty-six pounds to the bushel; and any person offending against this provision, shall be subject to a fine of ten dollars, to be recovered before any Justice of the Peace of the city or county where said offence may be committed."

The Agricultural College.

We are in receipt of the Second Circular of the Maryland Agricultural College, containing copy of Charter, Names of Officers, Faculty and Students, Report of Register, full Course of Study, &c.

It gives us pleasure to state that the College is now thoroughly organized with a full corps of professors, in whose ability and efficiency the Board of Trustees have great confidence. We anticipate an auspicious opening of the next session in September.

Circulars may be had of the Register, Dr. Wharton, at the College, or at office of *American Farmer*.

The post office address of the College is "Maryland Agricultural College, Prince George's Co., Md."

~~ADVERTISEMENTS~~—MEDITERRANEAN WHEAT.—Mr. Peyton Johnston, of Richmond, sends us a statement of a fine crop of Mediterranean Wheat raised by him this season from seed imported in 1858 by Mr. David Landreth. We have not received a sample promised. Those who wish to get this variety may get good seed, we think, of Mr. Johnston.

The prosperity of the country at large is so dependent upon its grain crop, that we are always glad to believe in the reports of a large crop. We have such reports now through the newspapers and have no reason to distrust them, except that for years past we have had them just the same and generally very false. If we have a large crop, the papers say so; and if we have not a large one, they say we have. We can only hope the best, and take their statement with a grain of allowance. The wheat crop of Maryland and Virginia is undoubtedly short. In many neighborhoods and sections, the failure is very bad, while there is unquestionably a great deal of good wheat, both as to quality and quantity. The rye crop, we believe, is a good, and the oats, a heavy one. There has not been for many years, so fine a crop of hay and saved in such good condition.

As to the price of wheat, fortunately for our farmers, it is not dependent on the crop of this country, as, however large our product may be, there is promise of a very considerable foreign demand which must ensure fair prices. All accounts, both public and private, agree as to the unfavourable prospect for a crop, both in Great Britain and on the continent. Consumption has increased upon production very rapidly of late years, and with a fair crop of her own, the United Kingdom wants annually some thirty to forty millions of bushels. This want will be increased this year, by reason of the lateness of the crop, lengthening the year of consumption, while it exposes the crop to hazard. With an unusually small supply of old grain now on hand, and the prospect of less than an average product, a deficiency of fifty millions of bushels is not unlikely. If the report which reaches us from the best authorities be true, as to the want of ability to supply this deficiency in any degree from the grain growing countries of the continent, England must look to us for the whole of it, and prices must go up.—With a large wheat crop and large prices, the country takes a fresh start on the road to prosperity.



VETERINARY.—We call attention to the article of Dr. Richter-Sandor, on the symptoms, characteristics and treatment of the cattle disease. The doctor may be found at 28 Centre Market Space. We trust we may have no occasion for his services, but it is well to know, in case of need, that we have amongst us an experienced and intelligent Veterinarian familiar with the fatal malady. Letters addressed to him at his office will receive prompt attention.

Answers to Correspondents.

A correspondent at Knoxville, Tenn., begs advice as to the treatment of meadow land which "at this season of the year becomes *exceedingly hard*." He anticipates our advice to drain it, but says, "it is perfectly flat," and that he should have "to cut ditches every 3 or 4 feet to do any good." We can hardly help him out of the difficulty. If too much water is the trouble, it must be got rid of to effect any good, and if there is no fall to take the water off, except at enormous expense, he must count the cost and ascertain whether the improvement likely to be affected will pay for it. Sometimes it happens that wells may be readily sunk to strata of sand or gravel underlying the wet clay not many feet, which will make cheaper outlets downward than can be effected otherwise. These may be filled in with stone and make permanent and effective drains. The question of cost and practicability can only be determined on the spot.

A correspondent on the Eastern Shore asks our advice as to whether he shall purchase guano to apply to an old field that has not been improved with clover, or refrain from the use of guano, as he did last year on our advice, and sow wheat upon clover fallow. We prefer clover fallow as the best and cheapest preparation for a good crop of wheat, and should be disposed generally to use upon it 50 to 75 lbs. of guano, put in with the drill. We would not use guano upon an old field, unless with a view to getting it set in clover, and for that purpose it is better to work it a year in corn, or even longer, if it has lain long. Guano never pays so well as on these old fields, but they should be prepared by previous cultivation to ensure a set of clover.



Webster's Pictorial Dictionary Unabridged.—We have received from the publishers, G. & C. Merriam, Springfield, Mass., through Messrs. Cushings & Bailey of this city, a copy of this very valuable work. Every one understands the value of a first rate Dictionary, and this rank cannot be denied to the great work of Dr. Webster. Webster took the lead as the first great American Lexicographer, and maintained his eminence for a long time without competition. The present edition, with a large addition to the number of words and a great many beautiful and exceedingly useful illustrations, is offered to the public at the very low price of \$6.50. Our old copy of the first edition cost \$20. No family can afford to be without a good Dictionary.—We call attention to the advertisement on another page.

U. S. Agricultural Society.

We had the pleasure of meeting on the 17th July, the Executive Committee of the U. S. Agricultural Society, with a few other gentlemen, at Hayfields, the residence of John Merryman, Esq. The Committee convened there on Mr. Merryman's invitation, to perfect the Premium List of the Society and conclude their necessary arrangements for the next Exhibition.

The Exhibition will be held in the Park near Cincinnati, opening on Wednesday, the 12th of September, and concluding on Thursday, the 20th. The Premium List, it is understood, is arranged on the basis of the Exhibition at Chicago, and will be printed and may be had of B. Perley Poore, Esq., Secretary, at the Rooms of the Society at Washington, after the 25th July, ult. The Premiums amount, in all, to \$20,000. Three thousand dollars of this amount is offered for thorough bred Horses.

The Committee have made a full list of premiums for Cattle as usual, but have reserved to themselves the privilege of withdrawing them at any time previous to 1st September, if, in the opinion of the President of the Society, the cattle of the State of Ohio shall incur any risk of the introduction of the cattle disease, by importation from other States for the Exhibition.

We had an opportunity of inspecting in the field, Mr. Merryman's fine herd of Herefords, numbering now about forty head, old and young, and a flourishing flock of Hampshire Downs. Mr. M. has been the first to introduce these valuable breeds into the State. They both promise to adapt themselves well to the farm management of the Middle and more Southern States, paying well for the best care that may be given them, but not exacting so much attention as some other improved breeds, nor suffering so much from the occasional neglect incident to farming, where stock breeding is not the primary interest. We have published heretofore more particularly the characteristics of both the Herefords and Hampshire Downs. We hope Mr. Merryman's judgment as to the merits of these breeds may be approved by the test of a fair trial, and his enterprise in introducing them, at a large cost, well rewarded.

State Societies.

We are in receipt of copies of Premium Lists from several State Societies, as follows:

Premium List of the fourth annual Fair at the city of Holly Springs, Mississippi, under the management of the directors of the State Bureau. The Fair to begin 16th Oct. and last four days.

Premium List of the tenth Exhibition of the Wisconsin State Agricultural Society, to be held at the city of Madison, September 24th to 29th, inclusive.

Premium List of the twentieth annual Fair of the New York State Agricultural Society, to be held at the city of Elmira, October 2d to 5th, inclusive.

Premium List of fourth National Exhibition of Horses at Springfield, Mass., September 4th to 7th, inclusive.

Premium List of the first annual Fair of the Cotton Planters' Convention of Georgia, in the city of Macon, beginning the first Monday of December, 1860, and lasting three weeks.

Premium List for the eleventh annual Fair of the Ohio State Board of Agriculture, to be held at the city of Dayton, September 25th to 28th, inclusive.

••• One of the best things we have met with recently, in the way of improvement, is Vandemark's self-fastening portable fence. We should in all cases give the preference to the post and rail plank fence over any common fence, except where timber is so abundant and easy of access as to justify the old-fashioned worm fence; and even then, it is to be preferred where a neat appearance is required. The fence we now speak of is a substantial, firm, plank fence, *without the posts*, placed upon the surface, either perfectly straight or zig-zag, the panels secured together by an arrangement of the rails at the ends for that purpose, and making a firm, solid fence, yet as easily put up and taken down as a set of bars. It is made by securing each length of sixteen feet of rail stuff with upright pieces or battens of the same material. This work can be done under cover, in bad weather, by farm hands, and when done the fence is ready to go up. It is sustained by a triangular brace to each length of sixteen feet, made of same material as the fence, placed at right angles with the panel, (two rails of which rest in notches,) and making a firm clamp. This is only required for the straight line; the zig-zag or worm fence is self-supporting. There is no difference in the make of the panel, whether the fence is straight or otherwise, except that the clamp is wanted for the straight fence. Only the manner of putting the ends together makes the difference, and the panels once made, are equally adapted to a straight line or a circle, and afford a special convenience in putting up temporary enclosures around stack yards and for various purposes.

Every farmer will understand how desirable it is to have a fence which, while it is durable, may be readily transferred from one

line to another. A stone or piece of wood placed under the feet of the clamp, and the batten which represents the post, make the fence as secure from decay as the rails of the common plank fence. While the post and labour of digging the holes is dispensed with, it takes more plank, but for a fence of four rails, 4 inches wide and $1\frac{1}{2}$ thick, at the price of \$15 per thousand, it is easy to estimate that the cost, including labour, would not exceed 70 cents for a length of 16 feet, or 35 cents the common panel of 8 feet.

A specimen of the fence can be seen on the lot at the corner of Paca and German streets, opposite Miller's Hotel.

Messrs. MacDonald & Dugdale, agents for Baugh's Raw Bone Phosphate, have shown us two samples of oats on the stalk, consisting of six heads each—one sample grown by means of Peruvian Guano and the other by the Raw Bone Phosphate. The difference between the two is very greatly in favor of those grown by the latter fertilizer, both in the number of grains and in weight, and we have just perused a letter from the gentleman on whose farm the grain was raised, certifying that the weight of the heads produced from the Phosphate was double that of the other. This and similar evidence presented to the intelligent farmers and planters of the South, we think should at least entitle the Baugh's Raw Bone Phosphate to a fair trial, in comparison with other manures now before the public. Bone is well known to be a durable and reliable means for improving the soil, and the peculiarity claimed for Baugh's Raw Bone Phosphate is, that bones only are used, containing all their original organic matter.

The Hand Book, or Annual Record of Horticultural and Agricultural Statistics, compiled from various sources by Wm. P. Sheppard, proprietor of the Horticultural Agency, New York—containing Descriptive Catalogues of Culinary Vegetables, New Plants of 1859, New Flowers of the year, New Fruits, List of Ag. and Hort. Patents issued in 1859, of Ag. and Hort. Journals and of all the Nurseries in the U. States. A very useful book of reference.

THE CROPS IN MARYLAND.—At a meeting of the Executive Committee of the Maryland State Agricultural Society, the Vice President of each county of the State was requested by resolution, to send to the Secretary for publication, after harvest, a report upon the crops of his county. We have at this date (23d July,) received from that

officer, but one such report. Mr. Oden Bowie, reports that in Prince Georges', the wheat crop is, "not more than one-third of an average," "owing mainly to the unprecedented ravages of the fly and the joint worm, which in some instances amounted to a total destruction of the crop. I know of some farmers who scarcely made their seed, and of some fields that were not reaped."

"The corn is suffering from, for this season of the year, an unprecedented drought, which has also prevented anything like a full crop being planted."

We acknowledge the receipt of pamphlets as follows:

"Organization of the Cotton Power," being a communication of the President, Hon. Howell Cobb, to the Cotton Planters' Association of Georgia.

From the author we have "American Glimpses of Agriculture in Great Britain," by Luther H. Tucker, Esq., junior editor of the *Country Gentleman*." Those who have read these interesting and intelligent "Glimpses" in the *Country Gentleman*, will be glad to have them again in this compact form, and all who feel an interest in the agriculture of the Old Country, or in improved agriculture anywhere, should avail themselves of the pleasant and convenient medium of information furnished by Mr. Tucker.

"BIG ROOT" IN CABBAGES.—A correspondent in Accomac county, Va., asks us "why Cabbages have the 'Big Root' and what is the remedy." It is a disease peculiar to the cabbage tribe, caused by the larva of weevil operating upon the roots. It is attributed to the filthy condition of the ground, to too frequent repetition of the crop in the same ground, &c. Hog and other filthy manures are also said to cause it. We know of no remedy after the plant has become diseased, but it is avoided by cleanly culture, deep digging, rotation, &c.

An "Inquirer" in Calvert county, Md., asks us, "where the wheat fly comes from, and whether it is in the seed, or in the land." It is in neither the seed, nor the land. Its natural habitation is the wheat plant. The fly lays its eggs usually at the foot of the lower blades, and as soon as they hatch, the larva instinctively work its way down, preying upon the juices of the tender plants. Here it changes to the chrysalis or "flax seed" state, and the Spring brood remains in the stubble to be hatched out in time for a Fall supply of egg layers in the shape of the small wheat flies.

Wheat Culture.

Mr. Reynolds, in his communication on another page, says, "we should not have any late sown wheat." We add, nor any badly cultivated wheat land, i. e. imperfectly drained or ploughed, or insufficiently manured. While wheat is the "staff of life" to man, no plant is so dependent as it upon man's care. A vigorous and productive grower, when its wants are properly supplied, it is a poor, weak, helpless thing, preyed on by all sorts of enemies when not well cared for. This remark has been well illustrated this season. We have seen on the same farm and under just the same circumstances, except of culture, a field of well prepared clover fallow early sown, making a full crop, and a field of corn land wheat quite capable, under favourable circumstances, of producing half as much, yielding absolutely nothing—not fit to put the scythe into. The strong growth of the former resisted and defied its enemies, while the sickly condition of the other invited the attack which it had not the vital energy to repel. We wish to call attention to this remark, and we hazard the opinion that, taking two fields, one of which is capable, under favorable circumstances, of bringing 30 bushels per acre, and the other 15, the 30 acre field will, in a course of six or eight years, yield not twice as much, but four times as much as the other. In the animal economy we see constantly that weakness and disease invite the attack of parasites. It is not the healthy, well fed animal that lice swarm upon, but the ill-conditioned, poor beast, that from want of proper food or from exposure, is deficient in vital force. We may rely upon it, there is an analogy between the animal and the plant. The enemy is attracted by the condition which offers the least resistance to his operations. Of one thing let us be certain, as the ills that flesh is heir to will follow man to the end of time, so fly and midge and chinch bug, and army worm, and rust and smut, will not cease from the earth any sooner. Protection, both to man and plant, is best found in a healthy, well fed, vigorous constitution.

Now the question arises how is this best secured for the wheat plant? Any intelligent practical man can give the answer, viz: by a right condition and preparation of the soil, by abundant available nutrient, and by allowing proper time for growth.

The first we have dwelt on repeatedly. A good dry loam from which the first crop of clover has been cut, and the second fed or ploughed under as early as it may well be done, then well compacted by rolling or harrowing, and the grain

put in by a very shallow moving of the surface. This makes the best condition of soil, and the nearer we can approach it the better. The common corn land sowing is a thing not fit to be done. The question of nutrient every one may determine for himself among the numerous fertilizers. If not already rich the ground must be made so. The plant must have ample food at hand. It must not have to work for a living.

But the point we wish especially to insist on with Mr. Reynolds is *time*; "we should not have any late sown wheat" we believe there is not one wheat grower in twenty who realizes the paramount importance of "time" for perfecting the growth of his crop. Wheat is not an annual plant. True it may be sown in Spring and mature seed, but Spring wheat is an abortion. The plant requires two seasons to perfect it, and for a full crop of grain it is essential that it have ample time in the Fall to send its roots wide and deep. If fly attack it, for being early sown, let it be fed off close into the very ground, if need be, till 1st of April. The blade now is of little consequence, but ample roots *must* be made in the Fall, if we would have a full crop of grain. We say this without reference to the casualties of midge and rust. These make it of course doubly important. We urge then on every account, and whether early or late varieties be sown, that you *sow early*.

"Nature's Mode."

A correspondent of the *Country Gentleman* well observes: "I can hardly read an agricultural paper without seeing 'nature's mode' appealed to and recommended. It is time this argument was discarded. The very fact that LABOR is ordained, shows that *nature's mode*—which means the practice of neglect and non-interference by the hand of man, when strictly analyzed—was never intended by the Creator. Even in paradise, man was to 'dress and keep' the garden. 'Nature's mode' was afterwards pointed out in the growth of 'thorns and thistles.' I have seen fields of corn raised after this mode, the corn and weeds being nearly of equal height, and the product five bushels of green corn per acre. I have seen orchards cultivated according to nature's mode—full of suckers and brush. Grapes are frequently raised by this mode, and are two weeks later, smaller in quantity, and incomparably inferior in flavor to those obtained by the best artificial pruning and culture. Nature must, in any case, be improved, modified, changed, and heavily mixed with labor and skill, and often entirely thrown aside, in successful culture."

 Be sure to have a pond and ice-house.

Grain, Oats, Grass, &c.

CASTLE BLAYNEY FARM, NEAR BEL-AIR, }
July 6, 1860. }

To the Editor of the American Farmer:

I enclose you the dollar—about the fourth part of the true value of the *Farmer*, per annum—and while I am doing so will, in accordance with your general request, give you a line or two as to our farming operations, not in "yonder town"—as some, a little north of us, often say—but here about our "country side."

We are now in the very midst of harvesting *Grain* and *Grass*, the two coming almost together; even the *late sown* wheat has ripened sooner than usual. If we managed right we ought not to have any *late sown* wheat or *late planted* corn. If the experience of the writer has taught him anything, it is, that grain early in the ground gets so well rooted, that it is seldom *winter killed*, and then puts out early in the spring, and *early planted* corn generally takes the start, and holds on to it throughout, though it may sometimes happen that the *late planted* produces most. But watch our good farmers—those who stand high, as such, and who are seldom behind in all their operations on the farm—and see if the *true cause* of their success does not arise from the fact of their having everything done in proper time. Your correspondent, in fact, cannot use language too strong when he again urges his fellow farmers to commence all sorts of farm work rather too early than not to be in time; begin late, and you are late all through the year, and will *end* late, which will cause a late beginning the following year—and so it goes with some all their lives. Such men have little credit, as they *pay* their debts late also.

Our grass crops are first rate; wheat in general a fair average crop; rye do.; oats and potatoes promise well; fruit, as it regards apples and peaches, *very scarce*.

ED. REYNOLDS.

P. S.—I admire your wisdom in determining to eschew politics or any other subject not strictly agricultural. What is *your opinion of salt* as a manure? I have asked this question years ago, without obtaining more knowledge than that given by theory. It is of little use, according to my own limited experience. What its effect on clover hay? Will it preserve it or cause it to mould by attracting too much moisture? Would it likely kill grub worms, after old clover fallow? Dose on stiff or light land, &c. Many farmers use this article, without knowing its character or value. Is it worth much more than Plaister of Paris?

Many farmers are not aware of any rule of calculating the weight of the different sorts of hay and straw by *cubic feet* or *bulk*, and all I have seen on the subject in the *books* (as the lawyers say) amounts to nothing, being wrong in every instance. Could you not, with the aid of your correspondents, throw more light on that point and oblige many persons who have no scales in their vicinage, and, besides, desire to know how much hay their barracks and ricks contain?

E. R.

The Secret of Taming Horses.

A correspondent of the New York *Express* submits the following method of horse taming:

"For the oil of Cummin the horse has an instinctive passion, and when the horse scents the odor, he is instinctively drawn towards it. The oil of Rhodium possesses peculiar properties—all animals seem to cherish a fondness for it, and it exercises a kind of subduing influence over them.

To tame horses, procure some castor, and grate it fine; also get some oil of Rhodium, and oil of Cummin, and keep the three separate in air-tight bottles—rub a little oil of Cummin on your hands and approach the horse in the field on the windward side, so that he can smell the Cummin. The horse will let you come to him without trouble. Immediately rub your hand gently on the horse's nose, getting a little of the oil in it. You can then lead him anywhere. Give him a little castor on a piece of loaf sugar or apple. Put eight drops of Rhodium into a lady's silver thimble; take the thimble between the thumb and middle finger of your right hand, with your forefinger stopping the mouth of the thimble, to prevent the oil from running out while you are opening it, tip the thimble on his tongue and he is your servant. He will follow you like a pet dog. He is now your servant and friend. You can teach him anything, if you are gentle and kind to him."

WORTH KNOWING.—The great difficulty of getting horses from a stable where surrounding buildings are in a state of conflagration, is well known, and that in consequence of such difficulty, arising from the animal's dread of stirring from the scene of destruction, many animals have perished in the flames. A gentleman whose horses were in great peril from such a cause, having in vain tried to save them, hit upon the experiment of having them harnessed, as though they were going to their usual work, when, to his astonishment, they were led from the stable without difficulty.—*Spirit of the South.*

[For the American Farmer.]

Birds which Destroy Insects Injurious to Agriculture.

The magnificent theatre of the universe opens gradually to our view, and every object around us excites ideas of pleasure, admiration and wonder. When we view the productions of distant countries and different climates flourishing in healthful luxuriance around us, we feel conscious of the dignity of our nature, but when the destroyer makes its appearance, we are filled with astonishment. Great and perfect are his laws. The birds are beautiful and perfect. As the seasons approach, they come thousands of miles to carry out the law which is given to them by their Creator, to destroy the insects. But man has introduced his art of gunning, and by that destroyed millions of these useful creatures, and violated his arrangement, and given to the insect the power which was never intended it should have. But for this, the birds would have increased with the insects, and each would have fulfilled the law of its nature. The farmer should know their varied habits, the time and the seasons of their coming, and welcome them with thanks of praise. Wilson says: "Would it be believed that an insect no larger than a grain of rice should silently, and in one season, destroy some thousands of acres of pine trees, many of them from two to three feet in diameter and from a hundred to a hundred and fifty in height. Yet whoever passes along the high road from Georgetown to Charleston, in South Carolina, about twenty miles from the former place, can have striking and melancholy proofs of the fact. In some places the whole woods, as far as you can see around you, are dead, stripped of their bark, their wintry-looking arms and bare trunks bleaching in the sun, and tumbling in ruins before every blast, presenting a frightful picture of desolation." The Ivory-bill Woodpecker destroys this insect, and for his valuable services he is shot and sent to market, where he often brings a dime.

On the trees of the mountains the Crested Tit-mouse seek their principal food, which consists of insects, by searching in cracks and crevices of trees; in deep snows they may be observed, with their backs downward, drawing the torpid insect from the holes and bark, concealed between them. In the densest forests, in silence of the day, may be heard the song of the Pine Finch; he destroys the moth that pierces the tender shoots and terminal buds of the pine and fir trees. Along the old waste fields, upon the decayed trees, the Red-headed Woodpecker, alighting upon the trunk, will strike the bark with his bill, and listen until he hears the motion of an insect within, when he

splits open the bark and devours his prey. In the ploughed fields, the Crow Black Bird delights to follow the ploughman, as he turns the furrow, and seizes upon the grub before it can make its escape—but when the grubs are all gone he demands a small share of the crops for the services he has rendered. The sportsman follows and destroys the very friend of the farmer. Also may be seen in the cultivated fields the beautiful Blue Bird; it seizes with address the winged insect that flutters within its reach, and darts with surprising velocity on such as alight on the grass or run along beaten tracks or on ploughed fields. The Gold Crested Wren, only weighing seventy-six grains, subsists on insects and small caterpillars; in summer it seizes its prey nimblly on the wing; in winter it explores the holes and crevices, in which it finds torpid insects; it delights woody parts of the country, where oaks and firs abound. The residence of the American Mocking-Bird is seldom remote from the dwelling of man, to whose society it is so little averse as naturally to sing in his presence; their food is insects, and especially the cotton worm. In the barn on the farm, the Barn Swallow is busily engaged in catching flies, and did the Swallows fail to make their appearance for a single summer, our houses and crops would be overrun with insects. In the orchard, on the apple and other trees, may be seen hanging on the limbs dead, speckled leaves; these leaves contain, each, from one to two hundred eggs of the Antigua moth, united together by a gummy silken fibre. This is the food of the Orchard Oriole; as soon as they are hatched, he picks open the leaf and thousands of the caterpillars are destroyed by him. In the cultivated gardens, the Baltimore Oriole splits open the green pods for the sake of the grubs contained in the peas, thereby contributing greatly to prevent the increase of this noxious insect. The instinct that enables this beautiful bird to detect the lurking grub, concealed as the latter is within the pod, and the hull of the pea, is worthy our highest admiration, and the goodness of Providence which has endowed it with this faculty. I would humbly suggest the propriety of protecting and receiving with proper feelings of gratitude, the services of this and the whole tribe of Orioles, Fly Catchers, Warblers, Wrens, Finches, Swallows, Woodpeckers. By so doing, the most powerful destructive insects would be checked at once.

J. JACOB BOWER.

— The accounts from every section of the State of Texas, relative to the crops, is truly distressing. *

Meteorological Observations kept at Schellman Hills, Carroll Co., Md., Sykesville P. O., JUNE, 1860. (Reported for the American Farmer.)

DAY	THERMOMETER.				WIND.			RAIN Inch's	REMARKS.
	7 A. M.	2 P. M.	9 P. M.	D'y Mean.	7 A. M.	2 P. M.	9 P. M.		
1	62	65	57	67½	W.	N.W.	W.	.....	Clear.
2	62	75	65	67½	W.	W.	W.	.....	Clear.
3	60	70	60	63	W.	W.	N.	¼	Cloudy—rain.
4	63	75	65	67¾	N.	S.E.	E.	¼	Cloudy—clear—cloudy—7¾ P. M. gust, a great
5	65	74	65	68	W.	W.	W.	.....	Cloudy—clear. [deal of lightning and rain.]
6	66	78	66	70	W.	W.	E.	.....	Clear.
7	68	78	65	70½	W.	W.	W.	¼	Clear—cloudy 3 P. M., rain till 4 P. M.
8	66	74	60	66¾	W.	W.	N.W.	.....	Clear.
9	59	65	58	60¾	N.W.	N.W.	N.W.	.....	Clear.
10	57	70	60	62½	N.W.	N.W.	N.W.	.....	Clear.
11	58	75	63	65½	W.	N.W.	W.	.....	Clear.
12	66	76	65	69	W.	W.	E.	.....	Clear.
13	64	77	66	69	W.	S.E.	E.	.....	Clear.
14	66	75	68	69½	E.	E.	S.E.	.....	Clear.
15	67	75	68	70	W.	S.E.	E.	.....	Clear.
16	68	60	58	62	E.	N.E.	W.	¼	Clear—1½ P. M. rain—ended 5 P. M.
17	62	68	65	65	N.E.	N.E.	N.W.	.....	Clear—showery all the afternoon.
18	63	77	68	69½	N.E.	S.	S.	¼	Clear—between 12 and 1 A. M. gust of rain.
19	65	79	68	69¾	S.	S.W.	W.	1-5	Clear—cloudy—rain—5 P. M. showery.
20	64	75	65	68	W.	W.	W.	.....	Cloudy.
21	60	64	59	64½	N.E.	E.	N.E.	.....	The average temperature of the month
22	57	67	59	61	E.	N.	N.W.	.....	Cloudy. } is too low to cause rust on wheat straw
23	63	77	65	68½	N.	N.	E.	.....	Clear. } or potato rot.
24	64	75	66	68½	E.	E.	N.E.	.....	Clear. } The temperature too low for a full crop
25	60	75	66	67	N.E.	N.	S.	.....	Clear. } of millet or Hungarian millet.
26	65	85	75	75	W.	W.	W.	.....	Clear—cloudy.
27	73	85	72	76½	W.	W.	W.	¼	Clear—cloudy.
28	72	81	77	76½	N.W.	W.	W.	.....	Clear—cloudy—3½ P. M. shower, ended 5½ P. M.
29	77	85	77	79	W.	W.	W.	.....	Cloudy.
30	75	82	76	78	W.	W.	W.	.....	Clear—delightful breeze all day.
31									

Monthly Mean, 68½.

2.45 Inches Water fell.

HARRIET M. BAER.

Blooded Stock.

EASTON, TALBOT CO., July 12, 1860.

N. B. Worthington, Esq.

DEAR SIR: I thought it would be encouraging to young breeders of blooded stock to give, through your valuable paper, the product and cash realised from one cow of the Devon family. The cow is Matilda, well known to all breeders of Devons in this country. The prices and names of the gentlemen purchasing are stated below:

Heifer to Mr. McFarland, Richmond.....	\$100
Bull "Billy Barlow," to Mr. Norris, Baltimore.....	100
Bull "Henry Clay," to Mr. Bradford, Culpeper Co., Virginia.....	100
Bull "Timour," to Wm. Robinson, Baltimore.....	100
Heifer "Daisy," do. do. do.	125
Heifer Calf "Lilly," to Mr. Johnson, Philadelphia.	100
Heifer "Beauty," to Wm. Allen, Surry Co., Va....	250
	\$875
17 Premiums, amounting to.....	430
	\$1305

This famous cow is now in calf, and is looking as well as when she was four years old, and I expect to have her at all the fall Shows, and give the breeders a chance to excel her for beauty and milk. The above is only for calves and premiums, to say nothing for her milk and butter, which is considerable. Yours, respectfully,

HENRY J. STRANDBERG.

Streams in Pasture Lands.

Those who are so fortunate as to have small streams running through their places, should fix the precise position of their pasture fields here, upon both sides of the stream; because the irregularity of the banks will not admit of very profitable cultivation, and if sodded with blue-grass will improve every year. Trees should be left standing for shading the cattle in summer, and in some degree for protection from the wind in the winter. A field laid out in this manner is so convenient, that scarcely any but those who have tried the experiment are aware of its advantages. Streams of this kind are almost invaluable, as they supply water constantly for the animals—which is much better than watering them regularly, or irregularly, as it may happen; in which cases their thirst may sometimes become so great that they will drink more than is for their benefit, and will distend their stomachs to an extent which is injurious. It is better always for stock to be allowed to drink when their inclination prompts, and to always have water before them; they would then drink no more than they really need.—Ex.

The value of American vessels lost during February, 1860, is estimated at \$518,000.

The Recent Rainfall.

Drip, drip, drip. Never has so much rain fallen these four years past as we have had this winter. The umbrella, goloshe, and mackintosh manufacturers are perfectly jubilant. Far otherwise, however, fares with those in the country, who, with their hands in their pockets, flatten their noses against the window panes, or pace the house impatiently, to the misery of the inmates generally, and themselves in particular, thinking of their flooded fields and the pitiable condition of their sheep folded on turnips. Much-enduring brother, I sympathise with thee in this vision of unmitigated ruin.

Returning, the other day, dripping wet, from a long visit of inspection, rendered difficult and irritating by reason of the continued rain, I began to cogitate by the fire, after having changed my clothes, concerning the true effect of these perverse showers, and sure enough I found this laudable intention produced its own efficient reward. My discontent vanished as I discovered the secret influence of the rain upon my own land, and I dreamed that night that the little drops of rain were changed in color—they were yellow—and upon closer inspection I found that a golden rain had fallen to enrich me.

It is well that we should thus scrutinize those dispensations that we consider afflictive, for nine times out of ten we should find them friends in disguise.

Well, then, what is this rain, and what good does it do? Rain is the return to the earth, in condensed drops, of the aqueous vapors which are raised in the atmosphere by the sun and wind; this condensation being occasioned by a change in the general temperature, by a collision produced by contrary currents, or by a cloud passing into a cold stratum of air. Water expands and rarifies by heat. The quantity of vapor which the air is capable of receiving and supporting is regulated by its heat. Hot air will hold more vapor than cold; and when air, saturated with vapor, is cooled, it causes the vapor it contains to contract, and be precipitated either in rain or mist. Thus earth is supplied with moisture; and air, released of a portion of its charge, is prepared for the reception of a fresh supply in the shape of exhalation. Here are, then, two operations for us to consider:—1st. The air supplied with vapor. 2d. The earth supplied with moisture.

We have all read of the sirocco, a periodical wind which blows every year in Italy and Dalmatia, from the south, about Easter time, and continues twenty days. This wind is described

as peculiarly prejudicial to animal and vegetable life, producing great lassitude in the one, and burning up the sap in the other. The simoon, which prevails at certain seasons over the Great Desert of Africa, and is dreaded by the Arab and his camel, being fatal to life if not carefully guarded against, is very much of the same character. Now, we do not know what air really would be without vapor; but I imagine it would be something analogous in its effects to these destructive winds, which in passing over the arid plains of the East lose all their moisture, and thus blast the life they are intended to sustain. From this cause many tracts of country are uninhabitable. There is now three times as much water as land to compose the surface of this globe, and this proportion leaves many regions very spare of moisture. Had water and land been in the relation of 2 to 2, much land that is now inhabitable would not have been so, simply because the area from which evaporation would in that case have proceeded would have been too small to give the proper supply of vapor to the air, men would have perished with a parching thirst and a shrivelled skin, and vegetation would have been burnt up. Of two gases, the one exciting life and quickening combustion, the other highly inflammable, thus chemically combined, are formed a ponderable liquid named water, which evaporating passes as vapor into the air, extending a softening, quenching influence through all organic nature. Seeing that vegetable and animal existence depends upon the presence of a requisite amount of moisture in the air we breathe, we will pass to the second consideration.

The effects produced by the rains as they descend through the earth are very various, and require to be noticed separately.

I take it of course for granted that the rains do pass through the open pores of our soils, and are let off through the drains at some 36 or 48 inches from the surface, into the ditches, after having fulfilled their mission of fertilization.—Should the land, however, be what is generally termed “heavy and undrained,” the rain will generally run over the surface, dissolving and carrying away whatever of value it may meet with, to the nearest ditch. This process of course impoverishes the land, and of course farmers occupying land under such circumstances are low-spirited in proportion as the clouds form, and seem determined upon a wet night. These gentlemen have, of course, made up their mind to expend more money in working their stiff soils; they are content to deal in naked fallows; they think a late seed-time, and a late harvest, and a

worse quality of produce, better than the reverse, and are not at all careful to perform their quota towards improving the climate generally; and, with respect to this last point, I beg them to remember that the soil being thoroughly saturated with water, what is left must be carried off by evaporation; and, as every gallon of water thus carried off by evaporation requires as much heat as would raise five-and-a-half gallons from the freezing to the boiling point, the warmth abstracted from the atmosphere and from the soil is very considerable. A writer in the "Quarterly Review" states that 1 lb. of water evaporated from 1000 lbs. of soil will reduce the temperature of the whole 10°. Supposing the individual in question indifferent to such showing, I pass on to notice then those benefits that drained soils derive from rain.

We have come recently to attach very much importance to the admission of air to our upper and sub-soil. It fertilizes the earths, and feeds the roots of the plants. Mechanically and chemically it is essentially necessary to vegetation that the air should descend to the root, as well as play about the breathing leaves of the plant. Well, the rain finding its way down through the sub-soil to the drain is followed by the air, and every shower of rain expels the old supply, and makes way for a new one, bearing with it nourishment and warmth. This is one benefit.

The rain, in falling through an atmosphere of temperature higher than that of the earth, carries warmth with it to the depth of the drains, should the descent be copious. The writer, in the Review I have just quoted, further states: "The temperature of the ground three feet below the surface, in England, is rarely more than 46 to 48 deg.; and hence rain falling during summer, often of a temperature of 60 to 70 deg., raises the temperature of the soil as it filters through it to the drains; and this is, doubtless, one reason of the fact I have often proved, of the higher temperature of the soil in drained than in undrained land." Here is a second benefit.

The rain, in falling on the heated surface of the earth in summer, conducts some portion of this heat downwards, and so equalizes its temperature. This, though a benefit, is not particularly *a propos* just now.

Johnston tells us that the rain carries down soluble substances to the roots of plants. I would add to this, that it not only carries them down, but perfectly distributes them; and here I indicate, without stopping to discuss it, a third benefit.

In red-colored soils and some others, there are substances which collect from time to time, in-

jurious to the roots of plants. These the descending rains, like a vigilant police force, bid to move off, and disperse through the drains, retaining some of the most hopeful for purposes of reformation. We have here a fourth benefit.

Lastly, the falling rains bring with them fertilizing substances from the air.

Various are the exhalations sent up as vapor from the earth's surface. The sea sends up a portion of its common salt, &c., and the land numberless forms of volatile matter arising from decaying matter; and these, instead of being allowed to pollute the air, are dissolved, and brought again to the earth; so that the rains thus purify the air, bear moisture to parched vegetation, and organic nourishment to its roots, &c.

Having thus indicated the heads of the consideration which gave peace to me, it only remains for me to say that, next morning, I found a new pleasure in observing the water pour from the eyes of my drains, and determined to act upon the opinion expressed by one of the fathers of modern drainage, who was heard to say, while watching the success of an experimental cut, "Varrily, I do believe the whole arth should be drained!"

Nor was I disconcerted by the thought that, probably, much more rain must fall before the equilibrium is restored.* During the last four years we have lost 25 inches, or one entire year's fall; and if the same amount of rain falls every seven years, we need not expect to throw away our umbrellas just at present, though, every now-and-then, a bright, unclouded sky does to the sanguine portend an eternity of fine weather, and an early peck of March-dust.—*Farmer's Magazine, (London.)*

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MUTTON.—We mean to repeat a thousand times, or at least till what we say has some effect upon our countrymen, that a pound of lean, tender, juicy mutton can be produced for half the cost of the same quantity of fat pork; that it is infinitely healthier food, especially in the summer season, and those who eat it become more muscular, and can do more work with greater ease to themselves than those who eat fat pork. We know nothing more delicious than smoked mutton-hams, of the South Down breeds of sheep. Venison itself is not superior.—*American Agriculturist.*

* I have just received intelligence from the Superintendent of the Kew Observatory, that the rainfall from the 1st October, 1859, to the 31st January, 1860, was 9.425 inches.

Pear Blight—Its Causes and Prevention.

In an article on Pear Blight, in the December number of the *Cultivator*, by L. E. Berckmans, the subject was given a careful examination, and, as stated then, the writer hoped to be enabled to say more about it. After another season of close study we are satisfied a remedy exists, and the following remarks will only be a sequel to the former article.

In order to make the theory of prevention understood, it is necessary to describe the cause.

The *Cellular, or Utricular tissue*, may be considered as the basis of vegetable organization; not only does it constitute a part of the composition of all the parts of a plant, but it is the origin of all modifications of the elementary tissue which constitutes the organs of vegetables. Being examined with a microscope, this tissue shows itself composed of Utricles of different forms, but attached to each other and forming a continued mass; the Utricles have communication with each other by invisible pores and are filled with a liquid commonly called *sap*. The tree or plant, in its normal state, has its functions of vitality performed upon the same principles as the animal; by any sudden cause, such as over-feeding, or its reverse, starvation, the economy is destroyed and disease or death is produced. Starting from this point, we find that the blight shows itself more abundant after heavy rains following a protracted drought, or in the early spring, and again at the flow of the so-called *second sap*. The theory is, that a rain highly charged with nutritive gases and readily absorbed by the plants, (having had a moderate supply of nutriment for a protracted time) must have the inevitable effect of suddenly filling the utricles with a greater supply of sap than they are able to contain; this creates rupture and inward extravasation and is a hemorrhage of the vegetable blood, *i. e.*, sap; and at once brings death to the plant or part of the plant where the accident happens. This hemorrhage may take place over the whole cellular tissue, or be only partial, and occasions the whole or partial destruction of the plant.

This effect is caused, also, for the same reason, when a vegetable gets its sap in circulation after being in a state of lethargy for a long time, either in the spring or during the season of active growth.

This is commonly called Blight.

Blight already marked cannot be cured, but it may be prevented, or its further progress arrested. If we examine closely those trees affected, we will find that many of their branches are of

a uniform thickness for a considerable length, and often thicker at the upper end than at the base; this is owing to what, in gardener's language, is known as *bark bound*—those are the places where blight will, in most cases, appear; the cellular tissue in those places is compressed and inadequate to contain and transmit the sap necessary to the normal functions of the tree. Now, to prevent blight in those places, give a *longitudinal* cut so as to divide the bark of the limb or tree; this at once remedies the evil, the utricles are released of compression and can perform their functions at ease. Trees thus treated have invariably shown health and vigor, where, before that simple operation, they were drooping and vegetating slowly, showing that it is not only a sure preventive of blight, but a source of renovating and giving new life to a tree by causing the sap to flow in unobstructed canals.

Blight is most always an indication of decay in the variety affected. Such pears as Bartlett, Belle de Bruxelles, White Doyenne, etc., having been extensively and long propagated, have deteriorated in vigor by constant working upon stocks, often having no affinity with the graft, and from other causes, have attained a state of debility. This is the more apparent the further they recede from the first propagated trees of those varieties. The blight shows itself by the partial or entire alteration of the color of the leaves; when it is slow blight, that indication is sufficiently in time to apply the remedy; but in cases of sudden blight, the bark is often struck past remedy before the leaves show the disease at a distance.

The immediate causes of Blight seem to be:

- 1. Unhealthy condition of the tree, brought on by transportation, bad management, decay of variety, as above stated, or by the following more local causes: bad or improper soil, too much moisture, sudden variations of the temperature, *incompatibility* of grafts with some stocks.

The interior decay shows itself long in advance and by preparing the blight slowly, affords time for prevention. The immediate removal of all diseased wood is, therefore, of the utmost importance.

Nature often has her own way to split or burst the bark to give vent to the superabundant sap, but that process left alone to her, and unaided by the knife, is often performed in a rough, irregular way, and the tree is much relieved in finding a ready-made exodus for superabundant sap. Filling up a split is much more easy for

the tree than opening a valve, which must be healed again, and, in many cases, the bark is too hard to yield readily to nature's efforts.—P. J. BERCKMANS, in *Southern Cultivator*.

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Cattle's Tongues—Curry-Combs.

The tongue of a cow or ox is suggestive. It is armed with a compact bed of spines, very rough to the touch, and adapted to a variety of uses. With this pliable member, it draws grass between the teeth for cropping, and all other articles of food when necessary. It comes in play in reaching up into the limbs of trees for foliage or fruit, or in reaching over walls and fences after forbidden crops. The tongue is also used in disturbing the hair and skin on all parts of the body within reach, and the inaccessible parts of the head are curried by mutual accommodation. No sight is more common in a herd of cattle than this reciprocal toilet of the tongue. Here is nature's hint for the use of the card and curry-comb. These tools are especially called for in winter, when cattle are kept in stalls, with their heads confined, so that they cannot use their tongues upon their own skin.

It is said by old ostlers, that a good currying, brushing and rubbing down once a day are equal to a feed of oats for a horse. However this may be, there can be no doubt that it greatly promotes the comfort and health of horses and cattle. It removes all filth from the skin, which is apt to accumulate in stables, unless currying is attended to daily. The skin is constantly throwing off effete matter, which collects around the roots of the hair, and stops up the pores, unless it is in some way removed. The tongue does this partially, but the card and curry-comb do it still better. This office is performed for the horse quite regularly, because he is more frequently exhibited in the presence of his owner, and the cleanliness of the carriage, and of the clothes of the family, depend somewhat upon the condition of the skin of the horse. But the ox, the cow, and the young animals, are sadly neglected. It is not unfrequently that a yoke of oxen will come out of the stable in the spring, with a thick plaster of filth upon their hams, the accumulation of a whole winter—a disgrace to humanity, and to the good husbandry of the owner.

All these animals manifest their pleasure at the use of the card and curry-comb upon their skins, and after a little practice the young stock will come as regularly for their carding as for their food. It is an excellent method to tame heifers that are to bear their first calves in the spring. They become accustomed to the handling of man,

and submit to the first milking without much resistance. It is equally good for steers that are soon to be brought under the yoke. They become so gentle under gentle treatment, that they are easily broken to the yoke, and make a more tractable team than by the ordinary process. The card is a much better persuader than the ox-whip. This is excellent business for the boys, and they should be taught to keep the card moving.—*Am. Agriculturist*.

Points of Cows.

The quality of milk a cow will give, is indicated by hair and skin, and yellow color of the skin inside of the ears and other parts not thickly covered with hair. I have never known a cow, with soft, fur-like hair and mellow skin, appearing gummy at the roots of the hair when parted with the hands, that was not a good butter cow, and when fattened, would mix tallow well with flesh. Having been accustomed to fatten my cows that failed for dairy purposes, by age or otherwise, for many years, and being on the lookout for causes of known results, I have observed that those known to give good milk, made more thrift in tallow when fed to fatten. Hence the conclusion, that cows that handle well in what the butchers call tallow joints, may be judged to give rich milk, the quantity to be judged by a plainly marked design of nature in her physical structure. Instead of heavy head, horns, neck and shoulders, and comparatively light hind quarters, which is characteristic of the opposite sex, she should show an opposite design, by a feminine countenance, light head, neck and shoulders, widening backward from her chest to the loin and hind-quarters, where the most strength is required.—*Ex.*

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BEAUTIFUL COTTON.—We received on yesterday a sample of cotton made by R. D. Mann, Esq., of Edgecombe county, North Carolina, and sold in this city by Messrs. Donnans & Johnston, to Messrs. John E. Lemoine & Sons, at 12 cents per pound, which, for purity and silky softness, ranks among the finest cotton ever produced in the famous old county from whence it came. It is truly a rare article and eclipsed everything in the market on yesterday. The quality is also a very productive one, the yield—this being the result of an experiment with a new seed, but receiving no unusual attention—having been extraordinarily large. The sample could have been improved very much, we are assured, by pains and attention. Mr. Mann has enlarged his allotment for this cotton, and will continue to produce it annually.—*Petersburg Express*.

Country Houses.

To own a fine country-seat, with wide-spreading acres, noble trees, velvet lawns, enchanting views, and a stately mansion, seems to comprise the very sum of human happiness, and the abundant reward for a life of toil and self-sacrifice. It would seem as if the end and aim of all our business men, the strong incentive for their early up-rising and their constant toiling, were the accomplishment of this, the cherished wish of their hearts, to construct a home

"Far from the busy haunts of men,"

Where comfort, contentment, and peace shall reign supreme, and where the contemplation of the works of nature shall purify the mind of some of its earthly dross, and prepare it for higher joys and nobler aspirations. And not only our business men, but men of all professions—lawyers, doctors, clergymen, literateurs, actors—all dream of a rural home embowered among graceful elms or sturdy oaks, the air made vocal with the singing of birds, and blest with the clear, confident, hopeful tones of childhood.

"How happy he who crowns, in shades like these,
A youth of labor with an age of ease."

Nor do all wait until their gains enable them to retire from the cares of business. The rapid boat and the flying car convey them in the morning from their quiet country retreats to the active marts of trade, and as speedily restore them at night. They cheerfully sacrifice two hours daily of precious time in the dust and smoke of the railroads, in order that their families may enjoy the pure country air, and they themselves be able to pass at least their nights in peace and quietness. To be sure, they get a taste of the country's freshness in the early mornings and the late evenings; and they have, better than all, the balmy stillness of every seventh day to recreate their jaded minds. For all this they are duly thankful, and willing to go through more than dust and smoke to obtain it; but they have yet more to be grateful for—they have a home which their families may constantly enjoy with well-founded anticipations of permanent health.

And that home! It is the object of their fondest cares and ever-recurring thoughts. With what concentrated enjoyment they first sat down to plan it, when the land had been purchased, and the little knoll selected upon which to locate it, the carriage-drive here and the foot-path there, the barn yonder and the garden further down—it was an earnest of further joys in store—a rainbow of promise to the fair morrow of life. Thus the whole country in the vicinity of all large

towns is being covered with country seats, and all kinds of houses are being erected, from the thousand-dollar cottage to the hundred thousand-dollar villa. It is not to be denied that a great many of these are designed in good taste, and fill all minds that contemplate them with pleasant thoughts; but this cannot be said of all, nor indeed, of the greater part of them. They are of all imaginable styles of architecture, and some are a conglomeration of all styles; but the English pointed and the Italian styles are, perhaps, in the ascendant. The former is now the *beau ideal* of an American fancy cottage; and for this it is well suited—its sharp gables and aspiring finials and chimney stacks harmonizing agreeably with the lofty tree-tops that generally surround our country houses. It admits, also, of great irregularity of plan—a feature which contributes so materially to the romantic aspect of a design. But there are many disagreeable examples of the pointed style distributed over the face of the country, in which the proper grouping of the masses, and the just subordination of extraneous ornament has been neglected, and the result is anything but gratifying. These crude designs have caused some to be disgusted with the style, but they are only the exceptions to the rule. When properly treated, no style has more of the elements of picturesque beauty.

The Italian is also a favorite style in this country. Its broad verandahs constitute a very agreeable accession, in a climate where the sun shines so brightly or the rain falls so steadily in five out of every seven days of summer. In the one case or the other we can still spend under the verandah a pleasant afternoon, *al fresco*, and yet be sheltered from the disagreeable effects of either. It gives a shade to the lower story, where it is most desired, without shading the whole house as trees would do, to the destruction of both house and health. The campanile, or tower, affords an opportunity to view the surrounding country, and gives a prominent central point to the building. Our architects have produced many a fine example of this style. Of the Romanesque, the French, the Norman, and the Swiss, some examples may be seen, here and there, giving a pleasing variety to the face of the country.

But, as a general thing, country houses, in the neighborhood of this city at least, are made too costly. Too much expense is lavished on the fine finishing of the details, emulating, in this respect, the extravagance of the finest city houses. There are some which have cost from fifty thousand to two hundred thousand dollars, most of

which has been spent in fine stone carvings and elaborate interior work, which might have added great dignity to a Fifth avenue mansion, but which has little in harmony with the elevated simplicity of rural life. How many do we see now rising around us, within an hour's ride from the city, with all the walls faced with finely-worked stone ashlar, and set down in the midst of noble trees, with their graceful foliage and gently-rolling meadows, each looking like a bandbox in a flower garden. One of them has a marble staircase, which alone cost enough to build a very respectable cottage, and the expense of which might have been much more profitably lavished in spreading the house upon the ground, instead of mounting it up some four or five stories, as it now stands. Such an elevation might have been considered unavoidable in Wall street, but in the country it is inexcusable. A dignified simplicity and a regard to comfort in the disposition of the several apartments, are, of all things, most to be desired in a country house.

—*Architects' and Mechanics' Journal.*

Grooming a Horse.

"What do you give your horses to keep them in such fine condition?" asked a young farmer of his neighbor, whose team of bays was the pride of their owner and the admiration of the village. "Oats, carrots, and plenty of brush," was the reply. There is little need of insisting on the necessity of good food, and plenty of it, to have a horse remain vigorous. Every one knows that bone, and sinew, and muscle are manufactured from hay, oats, corn, &c., and that the raw material must be supplied to produce the strong-limb, elastic step, and noble spirit, which make a fine horse the universal favorite he is. But the important part which the skin bears in the animal economy, and the necessity of properly cleansing and keeping it in healthy condition, are not fully appreciated. Rough staring coats, "grease" or "scratches," inflammations, and a whole catalogue of diseases find their origin in neglect of proper grooming.

The skin of the horse, like that of other animals, not only affords protection to the parts within, but by the pores affords an outlet to a large part of the waste of the body. In out-door life, the natural state of the horse, this membrane becomes thickened and tough, capable of resisting changes of temperature; and by continual exercise, the pores are kept open, giving free exit to all the exhalations. But this alone will not give the smooth glossy coat which adds so greatly to the animal's beauty. Confining the horse to

the stable, as is generally done for at least part of the year, renders his skin tender, especially when he is kept warmly blanketed. Expose him now to great change of temperature; take him out and drive him until heated, return him to the stable, and let him stand uncared for over night, even for an hour, the sensitive skin is rapidly chilled by the evaporation of the sweat, the pores are suddenly closed, and often a cold, a rheumatic stiffness or other disorder results. Proper grooming prevents this, by toughening the skin, keeping it in healthy action, equalizing the circulation, removing obstruction from the pores, and what is of great importance, by rousing the action of the muscles at the surface, in some measure, compensates for the want of exercise consequent upon stable life.

Currying and brushing should not be done in the stable; the dust and scurf will be scattered in the manger to mix with the horse feed, besides keeping the stable uncleanly. Take the animal into the open air, tie him securely, and handle him so gently that he will enjoy, rather than dread, the application of the comb and brush. A sharp currycomb, roughly scraped over the tender skin, is anything but pleasant, as the shrinking and resisting animal will soon show. Apply this instrument lightly, and depend mainly upon the free use of the brush. Begin at the head, and pass the comb lightly up and down, until the dandruff is all loosened, and remove it with the brush. Be particular around the edges of the fore-top, and the mane. It is a good plan to sponge off the head and ears, using but little water, smoothing the hair down to its natural position. In going over the back, quarters, loins, &c., use the comb in one hand and the brush in the other, working lightly and quickly. Take much pains where the skin lies in folds, as the union of the legs with the body—let every part be made thoroughly free from dust and dandruff. Finish by rubbing down vigorously with wisps of straw, until the hair "shines like a bottle"—an extra smoothing touch may be put on with a woollen cloth. Do not fear all this trouble; it will be more than repaid in the extra looks and spirit of the horse.—*American Agriculturist.*

A CAT HINT.—When a cat is seen to catch a chicken, tie it round her neck, and make her wear it for two or three days. Fasten it securely, for she will make incredible efforts to get rid of it. Be firm for that time, and the cat is cured—she will never again desire to touch a bird. This is what we do with our own cats, and what we recommend to our neighbors; and when they try the experiment, they and their pets are secure from reproach and danger henceforth. Try it.—*Exchange.*

Lime as a Fertilizer.

We find in the *Winchester Republican* the following from one of the most intelligent and public spirited farmers of Maryland, addressed to another farmer of Frederick county, Va.:

SAM'S CREEK, 8th December, 1859.

To * * *.—MY DEAR SIR: Your favor of 28th July last came to hand in due course of mail, and I regret that my engagements ever since have prevented me from responding thereto in as full a manner as I have the disposition to do, and although my situation is pretty much the same, I will defer it no longer. I was surprised to hear that so little had been done in liming in your county, but not at all to learn of the reluctance felt at beginning—the same ordeal has been gone through here during the last twenty years, showing the effect of a neglected agricultural education—an almost total ignorance of the properties of the earth and its renovators. Now there is no diversity of opinion upon the subject founded on observation merely, and it is advantageously applied to all soils, and much of it hauled ten and more miles, both in stone to burn and ready burned. By burning, 46 per cent. of carbonic acid being expelled, but 54 per cent. of lime is left, which to those who have the means to buy it in that state, saves almost one-half in transportation if hauled immediately after burning. The promptest effect is seen in the yellow slate soils, and the slowest in the stiff clay soils near our lime stone, five or six years being required to shew decided effects in the products, warding off droughts, setting clover, &c. A friend in the vicinity of Frederick tells me the first application of fifty bushels gives him an average of two barrels of corn per acre—that is rather more than I would look for here on blue slate and clay.

Two applications of forty to fifty bushels to the acre, I am inclined to think, sufficient at present—although double that quantity would do no harm that I am aware of. Time alone can indicate what may be proper to do hereafter. A gentleman near me thinks that the lime is exhausted in twenty years, which I am inclined to doubt. The manner in which the land is treated after being improved by lime, will most probably have an agency in its duration. The lime evidently changes the impregnations of the crops grown favorably, which is seen in the increased products, sweetening the pastures, perfecting the straw and berry, &c., and finding more or less to act upon at once in different soils, shows different results, most probably from alkaline liberations. Farmers on good lands started slow, particularly

on limestone farms, supposing they did not want it—analysis however found no lime or a mere trace in their soils—now they apply it and would not do without it by any means, and really want it about as much as any body else. Let us now have a glance at the interrogatories:

1. How long has my attention been called to the application of lime as a renovator of the soil, and the history of my acquaintance with it? About twenty-one years, and I give the case of an acquaintance who I advised, as an illustration of its history on poor land in Carroll county, that had failed to sustain man and beast, although under industrious and good management. In eight years, between thirty and forty thousand bushels of lime was applied, his debts paid, a large barn built, &c., his annual products as high as one thousand bushels wheat, one hundred bushels clover seed, and corn, hay and all else in proportion, and his estate raised in value from say five to ten dollars per acre at the start, to thirty-five and forty dollars when sold within this year, some without improvements thereon. I applied fifty bushels per acre in 1846 on part of a field, which has shown decided improvement ever since in all crops over the unlimed portion.

2. Describe the country where used, and contrast its condition before and since being limed? All the various soils from the Monocacy river to the city of Baltimore. In the poor lands changed as in answer to No. 1, in those classed as rich so decidedly changed for the better that they are being limed everywhere in the eastern part of Frederick, Carroll and Baltimore counties.

3. Say what proportion of your people are liming? Almost every one upon the surface above named who is at all able—sentiment in favor of it universal—some wasting time and means with guano.

4. State the quantity per acre? From eighty to one hundred bushels, at two doses, several years apart—some double that quantity, the economy and utility of which I do not regard as well settled.

5. State the mode of application, in what form, slaked or quick, what season, and what crops? Generally applied directly out of the kilns unslaked, the ground being marked off in squares for its reception in half bushels or bushels, and then spread as soon as slaked. Most generally applied to the corn crops, but applied to all crops—and is being spread on grass some year or two before ploughing, which is perhaps the more preferable method.

6. Describe the appearance and consistency of the rocks? Our limestone rocks vary very much in appearance, being blue, white and red, and

variously mixed, and are all used without remarkable difference in effect.

7. Describe the kilns, &c.? There are kilns being used which burn from four hundred to fifteen hundred and more bushels, slightly different in construction—wood used generally for burning, although anthracite and bituminous coal are also used. Kilns containing about eight hundred bushels are, I believe, regarded as the best, in which fourteen to sixteen cords of good wood are required to burn about fifty perch of stone. Having the limestone convenient and wood plenty, I do not apprehend you will be frightened by the expense, and you must have a strangely constituted soil if you are not remunerated in a very few years. They are also beginning to burn in stacks of large size, both with wood and coal; with this process I am not acquainted.

On the preceding pages you have a hasty, and I fear a very imperfect answer to your interrogatories. When I sat down I thought two pages would suffice, now it seems to me twenty would be required.

If you should desire further information, I will endeavor to give it—here till 1st January, thereafter, till 10th March, at Annapolis.

Respectfully, your obedient servant,
D. W. NAILL.

The Lupine.

The Lupine has recently been extensively raised in the northern part of Germany, and especially in the Luneburger Heide (known as a very sterile and poor sandy soil in the kingdom of Hanover) and is a plant of great value both for forage and as a fertilizer. It is sown about the end of April or beginning of May, one and a half bushels to the acre; and I think that would be the right time in our climate, because the seed does not come up very quick, say in ten to fourteen days. It is very liable to be killed by frost when it first comes out of the ground, but afterwards it will recover. It wants a great deal of moisture when it first comes up, but after that it grows very luxuriantly with but little rain. It should not be sown on cold and wet ground. If it is sown for hay, it should be cut when the seed appears; but it is difficult to cure the hay because it is so very succulent, and heats very easily in the stack. If to be used for seed, cut it when the first seed is ripe, because the first is the best, and the same would shell out if allowed to stand until all was quite ripe. If sown as a fertilizer, it should be ploughed under while in full bloom; but it is not only a fertilizer when ploughed under—even the roots and stubble enrich the soil very much.

In wet seasons the stubble grows again, and makes a good pasture for sheep.

It grows on the Luneburger Heide from three to four feet high, yields from four to five tons of hay per acre, and sixty to seventy bushels of seed, in favorable seasons, and cattle eat the straw with great greediness, when once used to it. The hay is considered equal to timothy hay for sheep, but for cattle and horses of a little less value. The seed is equal in its nutritive character to peas, and is of much value for horses and working oxen, and for fattening cattle, sheep and hogs, although it makes the lard of a little yellowish color; but at first they refuse to eat it on account of its bitter taste, therefore it should be ground and mixed with some other kind of ground feed. Milch cows fed with meal of the seed give more milk, but of a little bitter taste.

There are three different kinds of this plant—the yellow, which is the most raised because it grows on the poorest land; the white and the blue, which require a better soil, and therefore are not of so much profit. For seed the yellow lupine should be sown a little thicker, because it does not then spread so many branches, and the best seed grows on the middle stem.

In older times this plant has been raised for forage for working cattle, and the seed has sometimes been used as a substitute for coffee and for breadstuff; but for this purpose the seed should be soaked in water for some time, to take away the bitter taste.

The above is a brief statement of a friend of mine who came from Germany last year, and who raised the lupine in the Luneburger Heide very extensively as a fertilizer, for hay and for seed, with much profit, and knows all about it by experience. I have been enquiring for seed without success, and if you know where any is to be had, please let me know; I would like to try it.

I am not a writer, but as an old subscriber of your paper, I took the liberty to give you an answer to your query; and if you find it useful, you may use it as you think best.—*Wis. Farmer.*

SMALL FRUIT.—It has grown to be almost a maxim among experienced horticulturists that, as a rule, no fruits pay so well or give such general satisfaction as the so called small fruit, by which we understand is meant strawberries, gooseberries, currants, &c. With few exceptions, they are all cheap, of easy culture, requiring but little space, and begin to yield profitable returns almost immediately. Of these small fruits, none are more universally popular—not even excepting the strawberry, by many considered the most delicate and delicious of all fruits—than the currant.—*Ez.*

SUNDAY READING.

Oh, Lord God, shine with Thy light into our hearts, that we may know the inestimable worth of Thy *pearl*, and how low is the price Thou dost ask of us. Add this to Thy mercies, O Lord, that the precious pearl be not shown and exhibited to us in vain. And thou that didst forbid us to *cast pearls before swine*, O! grant, by Thy grace, that though we have been sometimes so like the swine as not to know the worth of Thy pearl, but to prefer acorns and husk before it; yet, now enlightened and better taught of God, we may so well understand ourselves and Thy pearl, as most earnestly to covet it, and gladly to purchase it with all we have.

Christ says, *By their fruits ye shall know them*; not by the rind of an outward profession, not by the foliage of "fair words;" but by their fruits alone is judgment passed upon these trees; and not our judgment only, but that of the Supreme Judge of all at the last tribunal. In the sight of God and men words are silent, while deeds speak, yea, cry aloud.

It is to a Christian consideration, one of God's greatest mercies, that this world is so full of troubles; for, if we so much court her, now she is foul, what should we do, if she were beautiful? If we take such pains to gather thorns and tistles, what should we do for figs and grapes?

Heaven is the natural measure of all things here below, and they assume a greater or less value, according to the relation which they sustain to heaven. Riches are valuable, if they may be laid up there; honour is valuable, if it may be continued there; pleasure is valuable, if it may be enjoyed there.

Where your pleasure is, there is your treasure, there your heart; where your heart, there your happiness. The affections are like steps. Your will to you is a kind of journey. By loving God you ascend; by neglecting him you descend.—Though you stand on the earth, yet are you in heaven, if you love God. The body to be elevated, must shift its place; the soul to be elevated, changes its will.

It merits observation that in the sermon on the Mount, God is called *Father* no less than sixteen times. What an introduction to the Gospel! What a prelude to the gift of the Spirit of adoption and grace!

A man's nature runs either to herbs or weeds, therefore let him seasonably water the one and destroy the other.

There is not the most contemptible thing which by virtue of the Almighty fiat at first started out of nothing, that will not, if it be thoroughly searched and followed, at length bring us home to its eternal Father; as, of Him, and from Him, and through Him, so to Him are all things; to whom be glory forever! A light and superficial knowledge of natural things may indeed consist with atheism; but a deep and profound search into them brings men back to God, and necessarily binds them over to religion. Solomon's wisdom stayed not in the creature, though he perfectly knew so great variety; but did from them only, as it were, take its rise, and mount higher than the cedars, even into heaven itself; and there only find its rest, from whence it had its first beginning, like the "spirit of man returning to God who gave it."

I was sent into the world to provide for my own soul; indeed God has also committed to me the care of my body, but as one happily expresses it, with this difference; a master commits two things unto a servant—the child and the child's clothes. Will the master thank the servant if he plead, "I have kept the clothes, but I neglected the life of the child?"

A soul immersed in sense and worldly pleasure, cannot be a partaker of true spiritual comfort.—The ark and Dagon could not stand upon the same altar; nor will Christ submit to share the heart with Mammon. God sent no manna, till the provision of Egypt was spent.

There is no creature, of whom we may not learn something; every herb, flower, spire of grass, every twig, and leaf, every worm, and fly, every scale and feather, every billow and meteor, speaks the power and wisdom of their infinite Creator.

In thy apparel avoid singularity, profuseness, and gaudiness. Decency is the half way between affectation and neglect; the body is the shell of the soul; apparel is the husk of that shell; the husk often tells you what the kernel is.

Who blusheth not to hear the birds every morning, how sweetly and solemnly they sing out their praises unto God, and is so dull himself as not to do the like.

Few take care to live well, but many to live long; though it is in a man's power to do the former, but in no man's power to do the latter.

Sin shuts up the soul, as darkness shuts up the eyes.

Whatever God withdraws from us, is not necessary for us.

Wholesale Produce Market.

Prepared for the American Farmer by ELLIOTT & HEWER, Producers and Commission Merchants, 69 Exchange Place.

BALTIMORE, July 25, 1860.

BUTTER.—Ohio, in brls. and kegs, 10 to 11; Virginia and Pennsylvania, in kegs, 11 to 12; Glades, 12 to 14; Roll, 12 to 14.

BEESWAX—37 cts.

CHEESE.—Eastern 11, Western 10.

DRIED FRUIT.—Apples \$1.40.

Eggs—In barrels, 10 cents per dozen.

FEATHERS—47 to 48 cents for good Southern.

LARD.—Brls. 11½, kegs 12½, jars and other country packages, 12 to 13½.

TALLOW—10½ cents.

Wool.—Unwashed 23, tub washed 33, pulled 29, fleece 40 cents.

Baltimore Markets, July 25.

COTTON.—The demand is confined to wants of manufacturers. Prices are very irregular and declining, and low grades are unsaleable.

Grades...	Upland.	Gulf.	Western.
Inferior.....	5 a 6	5 a 6	5 a 6
Ordinary.....	7 a 8	7 a 8	7 a 8
Good do.....	9 a 9½	9 a 9½	9 a 9½
Low Middling.....	10 a 10½	10 a 10½	10 a 10½
Middling.....	11 all½	11 all½	11 all½
Strict Middling.....	11 all½	11 all½	11 all½
Good Middling.....	12 a 12½	12 a 12½	12 a 12½
Middling Fair.....	12 a 12½	12 a 12½	12 a 12½

FISH—are dull. We quote prices as follows: Mackeral, \$7.50 to \$8 for medium; \$8.75 to \$9.25 for large No. 3. Alewives, \$.45 to \$.50. Southern Herrings, \$5 to \$5.25, for short and full brands; Eastern Herrings, \$.25 to \$.30. Shad, none here.

FLOUR.—We quote Howard street Super, \$.55; Extra, \$.6; Ohio Super, \$.65; Extra, \$.66. City Mills Super, \$.65; Extra, \$.66. Family Flour, \$.65 to \$7.00 for the different brands; very choice brands, \$8.

Rye Flour and Corn Meal.—We quote Rye Flour at \$4. Corn Meal at \$3.50 per bbl.

GRAIN.—Red Wheat, \$1.20 to \$1.27 for good to prime. White, \$1.20 to \$1.30 for ordinary to fair; \$1.35 to \$1.50 for good to prime, and \$1.55 for fancy lots.

Corn.—We quote white at 65 to 70; yellow 60 to 63 cts.

Oats.—Maryland and Virginia, 32 to 38; Pennsylvania, 38 to 40 cents.

Rye.—Maryland and Virginia, 68; Pennsylvania, 75 cents.

Mill Feed.—Brown stuff, 12 to 15; middlings, 25 to 27 cents per bushel.

PEAS and BEANS.—Black-eyed Peas, \$2.50 for two bus. bags. Beans, \$0.90 to \$1.25 per bus., as in quality.

PROVISIONS—Bacon.—Shoulders, at 10, and Sides at 12 cents per lb.

Bulk Meat.—Shoulders 9; Sides 11 cents per lb.

Pork.—Mess., \$20; Prime, \$15.50. Rump, \$14.50.

SEEDS.—Clover seed, \$4.50. Timothy, \$.8. Flaxseed, \$1.55 to \$1.45 per bus.

SALT.—Turks Islands, (except in cargo lots), 25 cents per bushel.

ASHES.—Pot, \$5.12½; Pearl, \$5.75 per 100 lbs.

TOBACCO.—There is a fair demand for Maryland Tobacco, and good descriptions are taken within the range of our quotations. We still quote frosted Maryland at \$2; ground leaf at \$3 to \$7; common at \$2.50 to \$3.50; middling, \$4 to \$4.50; good middling, \$5 to \$5.50; good leaf, \$6 to \$6.50; and fine at \$7 to \$12. Ohio Tobacco—inferior to good common at \$3 to \$4; red and spangled at \$5 to \$6.50; and fine and red spangled at \$7 to \$8; and good and fine yellow at \$9 to \$12. There has been a good demand for Kentucky Tobacco. We continue quotations, viz: common lugs at \$4.25 to \$4.75; good do. at \$5.25 to \$5.50; inferior leaf at \$5.75 to \$6.25; good do. at \$6.50 to \$7.50; fine at \$7.50 to \$9; choice at \$10 to \$12; and rich heavy Kentucky at \$7 to \$12.50. During the past week there were inspected 800 hds. Maryland; 1,547 hds. Ohio; 214 hds. Kentucky, and 1 hhd. Virginia.—Total 2,862 hds.

GUANO AND OTHER FERTILIZERS.—Prices continue without change. We quote Peruvian at \$61 to \$62 per long ton, according to quantity—the latter being for a single ton and upwards. For less than a ton, at the rate of \$56 per ton of 2000 lbs.; California or Elide Guano, \$50 per long

ton; Manipulated, \$47; Super-Phosphate, \$45; Mexican AA, \$20 to \$22; Mexican A, \$16; American Guano \$40 per ton for 2240 lbs.; Sombrero, \$32 per long ton; Ichaboo Guano, \$52. Navassa Guano, finely ground, \$25 per ton. Ground Bones, \$27 per 2000 lbs. Poudrette \$10 per ton in bulk. Plaster, \$1.25 per lb.

GINSENG—70 to 75 cents per lb.

HIDES—Country slaughtered, 9 to 9½; dry do. 14 to 15 cents.

HOPS—14 to 15 cents per lb. for new crop.

HAY and STRAW.—Hay, \$16 to \$18 for baled, and \$14 to \$16 per ton for loose. Straw, \$14 to \$15 for rye, \$10 to \$12 per ton for oat and wheat.

CATTLE MARKET. July 19.—Beef Cattle were in rather better demand to-day than on last Thursday, and prices for them were a fraction higher. There were 800 head offered at the scales, against 600 head last week, 150 of which were driven to Philadelphia, and the remaining 650 head were sold to Baltimore butchers, the bulk, at prices ranging from \$3.50 to \$4.50 per 100 lbs. gross; but for a single lot of very superior Cattle sold by Messrs. Bastable & Hunton to Messrs. William L. & T. J. Rush, a higher price than is named above was obtained.

HOGS.—Live hogs now range at from \$7.50 to \$8.50 per 100 lbs. net, but the outside figure can only be obtained for strictly prime lots.

SHEEP.—Sheep are unchanged in price, and we quote them as before at \$2 to \$3 per head.

NEW ADVERTISEMENTS.

Ault & Son, S.—Turnip and Cabbage Seeds.

Allen & Needles, (Philadelphia)—Fertilizers.

Bibb & Co.—Stove House.

Boyer & Bro., W. L.—Mill, &c.

Bates, Sullivan—Cranberry Plants.

Borum & McLean—Cider Mill.

Cornell & Dorsey—Fertilizers.

C. M. Saxton, Barker & Co.—Books for Farmers, &c.

Daily, W. F.—Patent Truss.

Evans & Co., Ed. J.—Central Nurseries, York, Pa.

Evans, R. H.—Horse Power Thrasher.

Frost & Co.—Nurseries, &c.

Garrett, M.—Wants.

Hickok, W. O. (Harrisburg)—Keystone Cider Mill.

Hance, Asher & Son (N. Jersey)—Rumson Nurseries.

Higgins, Dr. James—Per Manipulated Guano.

Long, D. H. (Norfolk)—Farm in Princess Anne Co., Va.

MacDonald & Dugdale—Baugh's Raw Bone Phos. Lime.

Merryman, John—Cattle, &c.

Malcom & Co.—Baker and Jarvis Island Guano.

Merriam, G. H.—Webster's Dictionary.

Office—Chester Pigs.

Pullen, Isaac (Highstown, N. J.)—Peach Trees.

Patterson & Murguiondo—Salt.

Pitt, Thomas I.—Inspections of Guano.

Rogers & Gest—Seeds, &c.

Reese & Co., John S.—Manipulated Guano, &c.

Shanks, Thomas—Sewing Machines.

Turner, J. J. & F.—Excelsior Guano.

U. S. Agricultural Society—National Exhibition.

Zink, John C.—Trees and Plants.

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AMERICAN FARMER—ADVERTISER.

Office of Inspector of Guano, } No. 63 Second street.

ANALYSES of the cargoes of Guano imported in the following vessels:

1860. Peruvian.

March 7	Ship Onward,	Ammonia 16.84 per cent.
30	Barque Tangier,	Ammonia 16.75 per cent.
April 12	Ship Dashaway,	Ammonia 16.65 per cent.
12	Ship George Raynes,	Ammonia 16.72 per cent.
16	Ship Fair Wind,	Ammonia 16.65 per cent.
16	Barque Eadine,	Ammonia 16.68 per cent.
16	Ship Wanderer,	Ammonia 16.90 per cent.
May 19	Ship Crest of the Wave	Ammonia 16.92 per cent.
24	Ship Rose Standish,	Ammonia 16.55 per cent.
24	Ship Orpheus,	Ammonia 16.87 per cent.
June 15	Ship Chariot of Fame,	Ammonia 16.90 per cent.
22	Ship Bethiah Thayer,	Ammonia 16.94 per cent.
July 9	Schr. F. M. Abbott,	Ammonia 15.95 per cent.
9	Bark J. U. Brookman,	Ammonia 16.90 per cent.
11	Schr. Luther Child,	Ammonia 16.00 per cent.
11	Schr. Gen. Hersey,	Ammonia 16.15 per cent.
12	Bark Hadley,	Ammonia 15.95 per cent.
12	Ship Twilight,	Ammonia 16.84 per cent.
17	Schr. Treasurer.	Ammonia 15.85 per cent.

All of the above cargoes contain from 28 per cent. to 30 per cent. of Bone Phosphate of Lime.

Mexican.

March 19	Schr. Ada Frances,	Phosphoric Acid 29.49, equal to Bone Phosphate of Lime 63.89 per cent.
March 24	Brig Coquette,	Phosphoric Acid 20.09, equal to Bone Phosphate of Lime 43.52 per cent.
March 31	Brig Josephus,	Phosphoric Acid 27.27, equal to Bone Phosphate of Lime 59.09 per cent.
April 5	Brig Humboldt,	Phosphoric Acid 26.68, equal to Bone Phosphate of Lime 59.75 per cent.
April 16	Schr. Isabel,	Phosphoric Acid 25.70, equal to Bone Phosphate of Lime 55.68 per cent.
May 12	Schr. Kaloolah,	Phosphoric Acid 26.50, equal to Bone Phosphate of Lime 57.41 per cent.
May 21	Schr. Cosmos,	Phosphoric Acid 14.96, equal to Bone Phosphate of Lime 32.41 per cent.
May 30	Bark Ellen Morrison,	Phosphoric Acid 29.10, equal to Bone Phosphate of Lime 63.15 per cent.
June 6	Schr. Ocean Bird,	Phosphoric Acid 24.15, equal to Bone Phosphate of Lime 52.32 per cent.
June 6	Schr. S. M. Kent,	Phosphoric Acid 24.15, equal to Bone Phosphate of Lime 52.32 per cent.
June 7	Brig J. R. Rhoades,	Phosphoric Acid 27.85, equal to Bone Phosphate of Lime 60.34 per cent.
June 7	Schr. Wm. Wilson,	Phosphoric Acid 25.46, equal to Bone Phosphate of Lime 55.16 per cent.
June 16	Jennie Morton,	Phosphoric Acid 27.15, equal to Bone Phosphate of Lime 58.82 per cent.
July 5	Brig Crawford,	Phosphoric Acid 27.31, equal to Bone Phosphate of Lime 59.17 per cent.

White Mexican.

March 19	Schr. Ada Frances,	Phosphoric Acid 33.93, equal to Bone Phosphate of Lime 73.51 per cent.
Mar. 24	Brig Coquette,	Phosphoric Acid 20.37, equal to Bone Phosphate of Lime 44.03 per cent.
April 2	Brig Humboldt,	Phosphoric Acid 33.50, equal to Bone Phosphate of Lime 72.58 per cent.
April 14	Schr. Isabel,	Phosphoric Acid 28.05, equal to Bone Phosphate of Lime 60.77 per cent.
June 7	Schr. Wm. Wilson,	Phosphoric Acid 35.50, equal to Bone Phosphate of Lime 76.91 per cent.
June 7	Brig J. R. Rhoades,	Phosphoric Acid 18.51, equal to Bone Phosphate of Lime 40.12 per cent.

Navassa.

April 23	Schr. Home,	Phosphoric Acid 32.75, equal to Bone Phosphate of Lime 70.96 per cent.
April 30	Brig S. G. Bass,	Phosphoric Acid 32.87, equal to Bone Phosphate of Lime 71.22 per cent.
May 19	Ocean Belle,	Phosphoric Acid 32.75, equal to Bone Phosphate of Lime 70.96 per cent.
June 6	Romance,	Phosphoric Acid 32.75, equal to Bone Phosphate of Lime 70.96 per cent.
June 15	Rio Grande,	Phosphoric Acid 32.85, equal to Bone Phosphate of Lime 71.17 per cent.
June 21	Condor,	Phosphoric Acid 32.85, equal to Bone Phosphate of Lime 71.17 per cent.

Sombrero.

February 20	Schr. Geo. Henry,	Phosphoric Acid 26.90, equal to Bone Phosphate of Lime 58.28 per cent.
February 24	Schr. Francis,	Phosphoric Acid 26.90, equal to Bone Phosphate of Lime 58.28 per cent.
March 8	Cemants Hopkins,	Phosphoric Acid 25.00, equal to Bone Phosphate of Lime 54.16 per cent.
March 26	Ann Maria,	Phosphoric Acid 25.97, equal to Bone Phosphate of Lime 56.27 per cent.
April 16	R. H. Perkins,	Phosphoric Acid 26.23, equal to Bone Phosphate of Lime 56.83 per cent.
April 24	Olive Branch,	Phosphoric Acid 28.78, equal to Bone Phosphate of Lime 62.35 per cent.
April 30	Sallie Mears,	Phosphoric Acid 29.35, equal to Bone Phosphate of Lime 63.69 per cent.
May 1	Ann Elizabeth,	Phosphoric Acid 29.62, equal to Bone Phosphate of Lime 64.17 per cent.
June 2	Graham,	Phosphoric Acid 31.70, equal to Bone Phosphate of Lime 68.81 per cent.
June 15	Golden Rod,	Phosphoric Acid 32.40, equal to Bone Phosphate of Lime 70.20 per cent.
June 15	Champion,	Phosphoric Acid 33.45, equal to Bone Phosphate of Lime 72.47 per cent.
June 28	St. Mary's,	Phosphoric Acid 32.75, equal to Bone Phosphate of Lime 70.96 per cent.

Jarvis Island.

March 20	Schr. J. S. Welden,	Phosphoric Acid 20.47, equal to Bone Phosphate of Lime 44.35 per cent.
April 11	Ship Mary Bradford,	Phosphoric Acid 25.00, equal to Bone Phosphate of Lime 54.16 per cent.

Baker's Island.

April 11	Ship Mary Bradford,	Phosphoric Acid 39.10, equal to Bone Phosphate of Lime 84.71 per cent.
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Johnson Island.

April 10	Schr. Seamen,	Phosphoric Acid 28.70, equal to Bone Phosphate of Lime 62.18 per cent.
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THOS. I. PITTS, State Inspector.

BALTIMORE, July 20, 1860.

BOOKS FOR FARMERS AND GARDENERS.

THE YOUNG FARMER'S MANUAL. By S. EDWARDS TODD. Containing Practical Directions for Laying out and Working the Farm, and how to erect Buildings, Fences, Farm-Gates, etc. The Work also embraces

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AMERICAN FARMER—ADVERTISER.

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The Exhibition will remain open from Wednesday, the 12th, to Thursday, the 20th of September, thus giving time to examine and test the implements and machinery.

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AMERICAN FARMER—ADVERTISER.

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Basil Duvall, Esq., Carroll county, Md., writes July 13, 1860: “I sowed one-half of my wheat with No. 1 Peruvian Guano, and the other half with your Excelsior, in the same field. The result proves the propriety of the name you have given to your Fertilizer. The wheat on that part of my land where it was used, being better than on the part where the No. 1 Peruvian Guano was used.—I am convinced from my experience, that the ‘Excelsior,’ is better for wheat on my soil, than any other manure I have yet used.”

Obediah Dean, Esq., Charles county, Md., writes July 11th, 1860: “I applied two tons of your Excelsior last fall on part of my wheat, alongside of No. 1 Peruvian Guano, same number of pounds of each per acre, and I am satisfied that the heads of my Excelsior wheat are decidedly the best; but a larger growth of straw where I used the Guano.

I have an excellent stand of clover where the Excelsior was applied, and scarcely any where Peruvian Guano was applied.

I tried one ton of Excelsior on a portion of my corn this Spring, and up to this time the prospect is very good—With my experience, I consider the Excelsior cheaper and better than No. 1 Peruvian Guano.”

Wm. Rowles, Esq., Howard county, Md., writes July 21, 1860: “I have used your Excelsior for two years, and am much pleased with it. The result being a good crop of wheat each year, and a fine set of clover. I think it is quite as good as No. 1 Peruvian Guano.”

Col. J. H. Gale, Kent county, Md., has used Excelsior for several years, and writes July 10, 1860: “It gives me great pleasure to inform you that your Excelsior acted on my wheat crop (just harvested) fully to my expectations, with me it leaves the land in much better condition for grasses, &c., and as compared with Peruvian Guano is much superior. I would not give it, pound for pound, at same price for any Guano I have ever tried. You may recollect I informed you that my land was not limed, and that may be the principle cause of your Excelsior acting so well on my land.”

Jackson Dorney, Esq., Little Gunpowder, Baltimore county, writes July 18, 1860: “I used a ton of your Excelsior on wheat last fall, and am much pleased with the result. I consider it as good, if not better than No. 1 Peruvian Guano for wheat.”

J. Perkins, Esq., Kent county, Md., writes July 12th, 1860: “I have made a good crop of wheat and your Excelsior has acted for me equal to No. 1 Peruvian Guano. own same quantity per acre. From what I now think of your Excelsior, I shall buy it altogether this fall.”

L. D. Watkins, Esq., Montgomery county, Md., writes July 16, 1860: “I have used your Excelsior on Wheat, Oats, Corn and Tobacco. On my wheat, just harvested, it was fully equal to No. 1 Peruvian Guano. Where it was applied to Tobacco, the plants are from four to six inches higher than where Peruvian Guano was used. I much prefer it to the Guano.”

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